

THE  
CANADIAN SPORTSMAN  
AND  
**Naturalist:**

A MONTHLY JOURNAL.



MONTREAL, JANUARY 13, 1881.

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THE CANADIAN SPORTSMAN AND NATURALIST.

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81.

VOL. I.

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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 1.

MONTREAL, JANUARY 15th, 1881.

VOL. I.

## TO SPORTSMEN AND LOVERS OF NATURAL HISTORY.

There is an evident demand for a lively journal devoted to our Field Sports and Natural History. The Canadian sportsman, properly speaking, never had a recognized paper whereby he could communicate his experiences. Newspapers as a rule took a daily public interest in matters of this nature, but a future reference to their columns has invariably been lost. This will not be the case with the *SPORTSMAN* which is printed in proper form, may be filed, bound or become a historical document. Besides, the greater part of the original matter written on this side of the St. Lawrence, referring to our Sporting matters and Natural History, has been generally posted to American scientists or to journals published in the United States; therefore, the literary talent produced by and properly belonging to this class of our intelligent manhood, has been absorbed through other channels. We are anxious to obviate this, hence the issue of the *CANADIAN SPORTSMAN AND NATURALIST*.

Our columns are therefore open to correct brief reports on Field Sports, and matters relating to Canadian Natural History. We intend to give accurate accounts of the large four-footed game; such as the Moose, the Woodland and Barren-ground Caribou; the Virginian Deer, and smaller quadrupeds. Another object in so doing, is to make an effort to harmonize the Game Laws of Canada, particularly those of the Provinces of Ontario and Quebec.

Ornithology and Oölogy, combining descriptions and remarks on our Northern Birds, their nests and eggs, will take up a portion of our space during the summer season of 1881. Thenceforth the other branches of Natural Science will be periodically attended to.

Our columns are open to writers on the delightful and exciting sport of fishing for Salmon, Trout, and other species of fish that rise to the fly. The most prolific lakes, rivers and localities will be carefully and correctly described. We intend to give an easy and inexpensive way to reach them. Lists of the food fishes found in our inland and maritime waters will be given, together with notes relating to them.

Next we approach Entomology—a branch of natural study containing forms of great interest, and at this age, studied more than any other terrestrial life. It is possible that the Editor who is now studying the *Solitary Wasps of the North*, will be able to describe some additional forms to the already important work on this class of American insects, by Henri de Saussure, of Geneva, Switzerland.

During the first year's issue, the monthly number of our pages will be necessarily confined to eight, but should the journal succeed in attaining the anticipated support which we desire, it will be enlarged to sixteen pages of interesting matter. Now, its existence rests with our sportsmen and students of Natural History; give it your support, and we will furnish you with a neat, well-conducted, spirited periodical, which will reach you regularly every month.

In a former part of our notice we stated that the situation of the Salmon Rivers of this Province would be accurately given, with descriptions of the pools and their distance from the coast. We have done so partly in this issue, in order that European, American and Canadian lovers of fishing may take advantage of these favorite localities during the season of 1881.

The Editor of the *SPORTSMAN* has had experience on the southern coast of Labrador, therefore, gentlemen wishing to visit the rivers hereinafter mentioned, may rely on *bonâ fide* sport.

### SALMON AND TROUT RIVERS AND LAKES OF QUEBEC.

It may be said that in former times salmon visited the greater portion of the Northern rivers entering the St. Lawrence above and below the city of Quebec. Some of these rivers are not now frequented by salmon. It is only of late years, however, that the Jacques Cartier became worthy of being leased for surface fishing. We are informed that under proper management and good guardianship, the pools on this river are prolific with fish that give excellent sport. Years ago, the small river known as the St. Charles, at Quebec, was considered a salmon stream, but none have been in it for seasons gone by. The Editor killed a grilse in the St. Charles, near Lorette, about fifteen years ago. Very large trout (*S. fontinalis*) has been taken by the fly from beneath the falls of Montmorenci. Doubtless, these were forced down the river when small, and having lain in the cool surging pool, the fish became fattened and large.

Salmon enter the St. Anns, but on account of lofty falls, they cannot follow the river to a great distance. This river has been greatly poached in the neighborhood of Bonquet's Bridge.

There are other salmon rivers of minor importance, entering the St. Lawrence below St. Anns, and some of them are pronounced good, but we believe that there has been too much netting of late years [on the coast, and hence the old reliable good score rivers have suffered. This may be considered a mere opinion; however, it will be our object to fully investigate the cause of last season's scarcity of the noble fish. We are anxious to have the opinion of men of old experience.

There are two ways of reaching the salmon rivers between Bersimits and Natashquan. This is done by means of sailing mail packets—one leaving the long wharf at Rimouski on the 1st and 15th of each month, from May to September. The other packet leaves Gaspé Basin on similar dates. The Rimouski

packet calls at Bersimits, Godbout, Trinity Bay, Seven Islands and the Moisie River. The captain charges one dollar per passenger crossing the St. Lawrence, the latter to supply his own provisions during the passage. The Gaspé packet is supposed to call at the west and east ends of the Island of Anticosti alternately—that is to say, one trip to English Harbour on the west end, and the following trip to Fox Bay on the north-east end; thence across to Natashquan, Point Esquimault, Mingan and other rivers on the same coast. The charge for the passage from Gaspé to Anticosti is four dollars, with board.

Now that we have introduced these matters in regard to fishing localities, the continuation of our remarks on the salmon rivers will appear in the February number. In the meantime, we will occupy a portion of our space with a description of the beautiful trout lakes situate north of Montreal.

We will first mention the region of the Upper Assumption River, where numerous lakes abound, containing beautiful rich-flavoured trout. It is difficult to reach the lakes of the Northern Laurentian districts, on account of rugged woodland and rocky surroundings, there being no roads leading from civilization but what are generally used on both sides of the river as Indian paths to the upper waters. With a good guide a series of mountain lakes can be reached in a day's walk from Manning's farm, taking along a canoe or two. Any lake will offer abundant sport. The upper portion of the Assumption river abounds in trout averaging from a quarter to two pounds weight. There is another grand scenic locality which we have visited, where the lakes are alive with large luscious trout; *these are situated on each side of the colonization road leading to the Mattawan*. The Black River runs for several miles along the side of the road and its pools and rapids are teeming with game fish; therefore, as a summer resort for fishing, this region cannot be surpassed. To reach the mountain lakes, it will be necessary

in starting from Montreal to take the steamer "Berthier," from the wharf opposite the Bonsecours Market, to Lanoraie, where a railway carries passengers, &c., to Joliette. At this village a team is necessary to carry the sportsmen and traps to either Manning's farm or Mr. Leprohon's house on the Black River Road, which leads through the trout lake region towards the Mattawan. We will continue this subject in the February number.

#### WHOLESALE SLAUGHTER OF WILD DUCKS.

Among the various devices resorted to for the destruction of our Wild Fowl, the swivel gun is perhaps the most destructive in its effects. Great numbers of wild ducks are annually slaughtered by its means, and the genuine Sportsman must view with alarm the rapidly decreasing numbers of the birds in the localities where it is used. For the past two or three seasons several American steam yachts, armed with these guns, have been cruising in Lake St. Francis, near Lancaster, Ont., and have apparently done a remunerative business in supplying the American markets with birds. The *modus operandi* is to steam slowly towards the large flocks, or "rafts" of ducks, on their feeding grounds in the lake, and as they are then usually in compact flocks, a great number are secured at a single discharge. As many as 50 to 100 being often bagged at a shot; while, as a matter of course, a great many are wounded, and but few of these are secured, the operations of these pot hunters being conducted on too large a scale to allow of the pursuit of single birds. It is needless to state that this system of shooting has already been productive of a great amount of harm, and if persisted in will spoil to a certain extent the duck shooting on our lakes. We therefore trust, before the advent of another season, the Game Societies of Ontario and Quebec will have taken the matter in hand and devised some means whereby the slaughter

may be prevented, and the rapidly diminishing birds be conserved for the legitimate sportsman.

WALLACE.

#### OUR JOURNAL

will sustain properly defined Game Laws of the Dominion of Canada. It will also extend a cordial hand of fellowship to all well organized game clubs. We fully trust in its success, and now wish our patrons happiness and prosperity, with plenty of sport during the season of 1881.

#### IN PROSPECT.

A gentleman lately returned from the Northwest Territories promises to send us some interesting and truthful accounts of the game noticed in the regions through which he passed last summer. We will endeavour to procure it for the February number.

#### PROVINCE OF QUEBEC.

##### GAME IN SEASON—JANUARY.

Caribou, Virginian Deer, Moose and the common Hare.

Ruffed and Spruce Grouse, Wild Geese and Ducks.

##### FISH IN SEASON—JANUARY.

Whitefish, Salmon-Trout, Speckled, Brook or River Trout, (*S. fontinalis*), Bass, Doré, Maskilongé.

NOTE.—Every net licence issued by the Department at Ottawa, states as a condition of the issue, that its use for the capture of Bass, prior to the 1st of July, is prohibited.

#### A GOOD FIT.

In the selection of a gun, the inexperienced Sportsman is apt to overlook one of the most important features required. For rapid and accurate shooting, it is necessary that the stock of the gun be curved to suit the length of neck of the marksman. To fit properly, the gun, when raised to the shoulder should be almost on a level with the eyes, requiring but a slight



bend in the neck to enable the sportsman to cover the object aimed at. Before the introduction of breech loaders it was a difficult matter to procure a gun with the necessary curve, and even at the present time, the greater number of those manufactured are too straight in the stock to suit the average neck.

The various improvements in the manufacture of guns made during the past few years, leaves little to be desired, and the reputation for excellence of work, achieved by some of the most celebrated makers, leaves little room for criticism. The Sportsman has now no difficulty in procuring a good article; let him be careful in his selection, recognize the importance of a proper fitting gun, and the result will be an increased pleasure in his sport,—a pleasure engendered by success.

WALLACE.

#### DEATH OF THE EDITOR OF "LAND AND WATER."

The death of Francis Trevelyan Buckland, better known as Frank Buckland—announced from London, has been expected, as he has been in wretched health for some time past. His father, the geologist, Dean of Westminster, a most accomplished man, lost his reason some time before his death. Frank Buckland, who was born in 1826, was a student of Winchester College and afterwards at Christ Church, Oxford. The larger part of his life was given up to the study of the natural sciences, and he was a recognized authority upon the habits and culture of the food fishes. Few men of science were so popular in England. He was a public benefactor through his introduction of new varieties of fish for food and especially through his successful cultivation of salmon and trout. In social life he was one of the most charming of men, despite the fact that his house was really a kind of combination of the Aquarium with the Zoological Gardens, so full was it of birds and beasts and fishes. Whoever loved him loved him perforce, not his dogs only, but his cassowaries and his

crocodiles. The story might have been told of him which was true of Agassiz, that when his wife one morning found in one of her slippers a cold little slimy snake, one of six sent the day before to her scientific spouse, and carefully set aside for safety by him under the bed, and upon the startling discovery started back, crying out in terror, Agassiz! Agassiz! there is a snake in my slipper!" the response of the *savant* was, as he rose suddenly up from his couch: "A snake! Good heavens, *where are the other five?*" At home Frank Buckland sat in a cumbrous old chair which he valued highly because it had once belonged to the famous John Hunter. Its uncomfortable angles were disregarded by him—they were convenient for the monkeys. These small men sat aloft, and were free to pounce down on his proof sheets at will. A retired organ monkey was a great favorite, and shared with the afflicted but always cheerful *savant* the frugal meals to which physicians limited him, tasting everything in turn, even to the claret and water.—*N. Y. World.*

#### MONTREAL BRANCH OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

The seventy-ninth meeting of the above Branch took place on the evening of the 11th inst., at the residence of H. H. Lyman, Esq., "Thornhill," McTavish Street.

An accurate and interesting paper was read by Mr. George H. Bowles, "On the month-parts of some carnivorous and wood-eating Beetles," with very excellent illustrations of dissections.

It was moved by Mr. Couper, seconded by Mr. Lyman, "That the paper just read, with the accompanying illustrations, be sent to the *Entomologist* for publication.—*Carried.*

Mr. H. H. Lyman exhibited his very fine collection of Insect Architecture, the only one of the kind in the city.

Mr. Burland, jr., was elected a member.

## Natural History.

### ORNITHOLOGY OF MOUNT ROYAL.

A ramble over our beautiful Mountain Park, and Cemeteries will well repay students of Ornithology, and Oölogy. The summit is 750 feet above the level of the river, and commands a view of one of the most magnificent landscapes on this continent. The noble river St. Lawrence, is seen for a long distance, and beyond Belœil Mountain rises majestically above the surrounding valley; on the south side, the view is bounded by the long range of mountains in the State of New York.

The writer spent many pleasant days last summer, observing the birds that frequent and breed on Mount Royal, and identified thirty-eight species. Those marked with an asterisk, do not breed on Mount Royal, but are frequently seen there. Several other species were observed, but not having been fully identified, are left out for a future note this coming spring. The following list contains the names of the thirty-eight species identified:—

Robin.....	<i>Turdus Migratorius.</i>
Wood Thrush.....	<i>Turdus Mustelinus.</i>
Catbird.....	<i>Mimus Carolinensis.</i>
Eastern Bluebird.....	<i>Sialia Sialis.</i>
Golden-crested Kinglet*..	<i>Regulus Satrapa.</i>
Black-capped Chickadee..	<i>Parus Atricapillus.</i>
Red-bellied Nuthatch....	<i>Sitta Canadensis.</i>
Brown Creeper.....	<i>Certhia Familiaris.</i>
Winter Wren.....	<i>Anorthura Hyemalis.</i>
Black-and-white Creeper..	<i>Mniotilta Varia.</i>
Summer Warbler.....	<i>Dendroica Estiva.</i>
Chestnut-sided Warbler...	<i>Dendroica Pennsylvanica.</i>
Golden-crowned Thrush...	<i>Sciurus Auricapillus.</i>
Redstart.....	<i>Setophaga Ruticilla.</i>
Bank Swallow.....	<i>Cotyle Riparia.</i>
Purple Martin*.....	<i>Progne Purpurea.</i>
Cedar Bird.....	<i>Ampelis Cedrorum.</i>
Great Northern Shrike...	<i>Collurio Borealis.</i>
American Goldfinch.....	<i>Chrysomitris tristis.</i>
Song Sparrow.....	<i>Melospiza Melodia.</i>
Snowbird.....	<i>Junco Hyemalis.</i>
Chipping Sparrow.....	<i>Spizella Socialis.</i>
English Sparrow.....	<i>Passer Domesticus.</i>
Indigo Bird.....	<i>Cyanospiza Cyanea.</i>
Cowbird.....	<i>Molothrus Ater.</i>
Baltimore Oriole.....	<i>Icterus Baltimore.</i>
Crow Blackbird.....	<i>Quiscalus Purpureus.</i>

Common Crow.....	<i>Corvus Americanus.</i>
Kinzbird.....	<i>Tyrannus Carolinensis.</i>
Phoebe.....	<i>Sayornis Fuscus.</i>
Nighthawk*.....	<i>Chordeiles Virginianus.</i>
Chimney Swift*.....	<i>Chetura Pelasgia.</i>
Ruby-throated Humming } Bird.....	<i>Trochilus Colubris.</i>
Black-billed Cuckoo.....	<i>Coccyzus Erythrophthalmus.</i>
Downy Woodpecker.....	<i>Picus Pubescens.</i>
Yellow-bellied Wood- } pecker.....	<i>Sphyrapicus varius.</i>
Golden-winged Wood- } pecker.....	<i>Colaptes Auratus.</i>
Ruffed Grouse.....	<i>Bonasa Umbellus.</i>

ERNEST D. WINTLE.

Montreal, Jan., 1881.

### THE BARRED OWL.

This bird was, last month, abundant in the neighborhood and city of Montreal. We have no recollection of seeing so many near another city in Canada. It is a day owl, and its occurrence in the vicinity of civilization may possibly be on account of the House Sparrows, which have multiplied greatly of late. The latter are easily caught during the winter, and doubtless a nice morsel for the owls. The common haunts of the Barred Owl are dense woods—they are not pelagic—loving the northern forests, but during winter, hunger will force all woodland animals to retreat from their solitudes. The abundance of the House Sparrow has also induced an unusual number of another enemy to remain in our neighborhood. The Shrike or Butcher Bird. Persons who have read the history of this bird can well understand that he would be a greater foe to the Sparrow than the more clumsy owl. Here we see a natural law faithfully carried out in order that each species may be benefited, even as parasites, retaining an equal balance in their sphere.

### THE GRAY SEA EAGLE.

A large specimen was shot on the 28th December, at the village of Cowansville, while in the act of carrying off a chicken from a farm yard. This eagle is the *Haliaetus albicilla* of Cuvier, a bird of doubtful specific position at present. Its habits are similar to that of the Bald Eagle. It is the property of J. I. Newport, Esq., of this city.



## WOODCOCK IN DECEMBER.

Early on the morning of the 16th December a man captured a woodcock which was running on the ground in the vicinity of Beaver Hall Terrace in this city. This fact would not have been ascertained, were it not for the numerous telegraph wires which surround the streets. During the previous night, the bird, in its southern flight, struck against a wire with force sufficient to take off the skin and feathers from the front portion of the head, above the base of its beak. Many woodcock are killed in the spring and fall by telegraph wires, as they migrate only at night, and generally fly low. The bird was brought to the SPORTSMAN Office, the man being ignorant as to its name. Having no immediate accommodation for this interesting game bird, we sent it to Mr. Hall's restaurant, on St. James street, where it was living on Christmas eve. It may not be generally known to Sportsmen or Naturalists, that the woodcock has the power to erect about half an inch of the upper mandible, without opening the beak to its base. It appears as if the bird was supplied with a flexor nerve to elevate the tip of the upper mandible. This feature was quite remarkable in the above specimen. It is supposed that these late woodcock have been living in the vicinity of warm springs on the Laurentian Mountains.

## REPORT ON NOMENCLATURE.

We have received the Third Annual Book of the Michigan Sportsman's Association for 1880. It contains ninety-seven pages of interesting matter. Considering the fifth Committee Report valuable to Canadian Sportsmen and Naturalists, we publish the first portion in this issue of our journal.

Your Committee on "Nomenclature, both Popular and Scientific," would respectfully report: That uniform and correct names *should* be habitually employed in speaking and writing of the different species of game. On account of the loose way of naming animals

in vogue in this country, many otherwise well-written articles become quite unintelligible. In reading of field sports we are constantly in the position of Mr. A., who was informed by his friend B. that he had just scooped Mr. Johns of a cool \$100 at poker. Mr. Johns being A.'s clergyman, and a very exemplary man, an explanation was demanded, when it was ascertained that it was not Mr. Johns at all that had been relieved of his money, but Jones, the gamester. Such carelessness in the use of names is reprehensible and never necessary. And yet in writing of game, one will give a description of a day with the partridges. As there are two species of birds called by that name, we are left in doubt as to which he means. Another has been shooting elk. Does he mean wapiti, or the true elk, commonly called moose? Another has caught a fine string of pickerel in the clear waters of Niagara river. We doubt the fact and the habitat. On investigation we find he enjoyed the superior sport of taking pike-perch. The same species receive different names in different places, and different species receive the same name. Some kinds are called by names that properly belong to other species, and thus the mixing and muddling goes on. One fish has received nineteen different names within a few hundred miles on the Atlantic coast. Herring are said to be taken in Lake Michigan, when it is known that there is not a herring west of the Niagara river, except such as are brought here dried or pickled. And so we might go on almost indefinitely depicting the ridiculousness of popular nomenclature. But the annoying fact is too well known to require amplification. Nor are we much better off when we turn to scientific classification and nomenclature; for ambitious naturalists are constantly re-arranging both.

What constitutes classification and nomenclature? Accepting the testimony of lexicographers, the first is an arrangement or distribution of groups in classes, orders, families, genera, and species, according to common

relations or affinities : and the second a peculiar system of technical names adopted as descriptive of the first. One, then, must be subservient to the other, yet in intimate relation to it. Again, classification should be an arrangement the most easily adapted to the demands of science, at the same time affording the best means of study and research ; in fact, should be the guide-board on the free road of science, instead of (as it too frequently is) the barrier and stumbling block to progress.

Nomenclature, too, is expected to serve the purpose of an aid to the examination and classification of objects in connection with the laws by which they are governed, and as a means of investigating their structure, history, and uses. For this reason Latin or Greek names were adopted as affording uniformity that could not be attained by the use of common or vulgar designations, and as permitting scientists of all nations to meet upon a common ground, irrespective of profuse lingual knowledge. Whether nomenclature is serving such a purpose, or not, we shall see further on.

Embracing so wide a scope as does natural history, objects animate and inanimate, from the awe-inspiring celestial bodies in their multitude, to the most insignificant of earthly microcosms, and details so numerous that to possess a knowledge of the smallest portions is a competent task for a lifetime spent in study and investigation, it is little wonder that errors are both numerous and constant. Yet this affords no excuse for their unremitting multiplication by individuals of less than two score of years who insist on forcing them upon us regardless of scientific truth or progress. They laugh, sneer, and pooh-poooh, the patiently acquired results of old, staid and carefully plodding and reasoning naturalists to scorn ; and not satisfied with this, only too frequently resort to abusive epithets and vituperative abuse. For what rights has either age or reason that are not subservient to Young America, when full of egotism, he steps upon the stage ?

Our interest as an association is centered

chiefly on those forms of *feræ naturæ* usually denominated game, with, perhaps a minor regard for the fur-bearing species. Individual animals, we feel, demand individual and at the same time appropriate names ; names indicative somewhat of their character—such is the true rule of nomenclature and classification. The better to exhibit relationship, individuals are collected into groups that present the greatest number of characteristics in common such being called *genera*. Genera are further collected under the same general rule into *families* ; families into *orders* ; and orders in turn into *classes*.

Were it possible to arrange all classes in such a manner that the individuals of one genera of an order should be connected more nearly with that order than any other, little would be necessary to render classification both simple and complete. But, unfortunately, it has been found that characters are not sufficiently uniform, and at the same time easily cognizable, to allow the arrangement of all groups of individuals into closely connected families. Aware of this, the great Swedish Naturalist employed one system of organs as the basis of classification. Others have aimed to classify only by the structure of individuals, as a whole, and this latter could it be carried into effect, would seem the most philosophical ; it has been found, however, that either system followed exclusively results in heterogenous combinations. It was like errors that caused the famous controversy between Huxley and Owen a few years since, and which led to the re-classification of mammals. A combination of the two systems is now in vogue as being the least objectionable, and affording the greatest facility in investigating the productions of nature.

The six primary orders of Linnæus are now divided into *vertebrates* and *invertebrates*. Of the former, mammals, birds and fishes alone have special interest for us. Following classification onward, we find mammals divided into classes in accordance with their marked physiological and anatomical peculiarities : and the

reproductive system being the most prominent and permanent in all forms of life, it is justly selected as a basis. UNGULATA, for instance, is recognized as a generic order among animals possessing non-deciduous uteri, and its name further signifies that all of this class have all the toes or digits protected by a case forming or approaching to a hoof. Now, the possession of hoofs, of itself, is not of sufficient evidence on which to base an order; but taken, with the peculiarities of diffused or cotyledonary placenta, of milk teeth, absence of clavicles and other concomitant anatomical idiosyncracies, it has a firm basis; but people at large are not supposed to be familiar with these, while a hoof or a hoof-like tendency is patent to all—hence the title.

By dividing the order *Ungulata* into two sub-orders, we have, PERISSODACTYLA (odd-toed) and ARTIODACTYLA (even-toed), and approach a step nearer the desired result. The former is further recognized by the possession of not less than twenty-two (22) dorso-lumbar vertebrae, a simple stomach, large caecum, udders in the groin or inguinal region; and when horns are present, as being entirely epidermal and devoid of bony core, and placed in the centre of the skull; there are also other minor characteristics too numerous for mention in this connection. This order embraces the *Equidae*, or horse family, *Rhinocerotidae*, or rhinoceros family, and *Tapiridae* or tapirs.

The ARTIODACTYLA, or even-toed, has two sub-orders, the *Rumantia*, or those provided with compound stomachs, and the *Non-Rumantia*. The former have but one pair of incisor teeth in the upper jaw of the adult, and those the outermost; canine teeth may, or may not be present above, they almost always exist below and are frequently so approximated and inclined forward as to be mistaken for true incisors, which they closely resemble in form; the third and fourth digits are consolidated into one, vulgarly known as the "cannon-bone," and there is an extra metatarsal or ankle-bone, appearing as if the detached distal end of the

fibula; the stomach is compound—"all chewing the cud"—with not less than three more, commonly four, divisions. Of this sub-order we hold the sheep, deer, or ox as a type.

While *Rumantia* might very properly be held as a family instead of sub-order, for convenience sake, and greater ease of approximation, it is divided into the families of *Tragulidae*, *Cotylophera* and *Camelidae*, the former with the false musk deer as a type, the second with deer, antelope, and oxen, and the last embracing camels, llamas, etc.

In turn, *Cotylophera* may be divided into sub-families as *Bovidae*, *Cervidae*, etc., though the anatomical differences are not sufficient to absolutely warrant it; to prevent confusion, however, it is perhaps better so. Next we have the genera *Cervus*, *Bos*, *Ovis*, *Antilocapra*, etc.

As classification now prevails, we have an order, *Rumantia*, embracing families of *Cervidae*, and *Cavicornæ*, etc. The latter is usually again divided into sub-families of *Ovinæ*, *Bovina*, *Aplocerinæ*, etc., and the former given the sub-family of *Cervinæ*. The *Cervinæ* embrace the following genera: *Alces* (elk or moose), *Rangifer* (reindeer or caribou), *Cervis* (wapiti or stag), and *Cariacus* (Virginia, black-tailed, mule deer, etc. The characteristics of the family *Cervidae* are given as "Incisors,  $\frac{0}{8}$ ; canines,  $\frac{1-1}{0-0}$ , or wanting; molars,  $\frac{6-6}{6-6}$ ; antlers solid, deciduous not encased by horns, sometimes wanting. Foot bifid."

Sub-family, *Cervinæ*—"Horns solid, always present in males, sometimes in females, not covered with skin; foot bifid, with two small hoofs behind and above the large ones."

Genus *Alces*—"Horns in male only, broadly palmated at tip; nose broad, hairy except small spot between nostrils."

*Rangifer*—"Horns in both sexes, broadly palmated at tip; nose hairy."

*Cervus*—"Horns on male only, rarely sub-palmate, curved backward, snags forward, one immediately above the hurr; tail short; hoofs broad and rounded."

*To be Continued.*



**WILLIAM COUPER,**  
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THE  
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AND

Naturalist :

A MONTHLY JOURNAL.



MONTREAL, FEBRUARY 15, 1881.

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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 2.

MONTREAL, FEBRUARY 15th, 1881.

VOL. I.

## ANSWER TO CORRESPONDENT.

R. B. S., GRAVENHURST, O.—All the North American deer are supposed to be described. You will find correct information from the Game Nomenclature which we are publishing. The deer you mention may be forms of Caribou or monstrosities. Send us drawings of the horns, which may lead to a determination.

## SALMON AND SEA TROUT RIVERS OF QUEBEC.

Passing onward from point to point on the north shore of the St. Lawrence, where *Salmo salar* occur annually, we will, in this instance, make a few remarks on additional localities where the noble fish is taken sometimes abundantly in nets, but scarce in rivers in the immediate vicinity. Omitting the St. Marguerite, Mr. Price's river, a tributary of the Saguenay, which is well known to Canadian and American anglers, we will glance at a narrow river entering the Bay of Esquimaux. A few salmon visit this river. There is a saw-mill near its entrance, and the bay has no depth at low tide. At one time it was considered dangerous for schooners to enter it on account of large boulders, but of late they have been removed by the Government, and it is now a fair harbour for small craft in bad weather. A few hours sail further down, the angler reaches Baie Mille Vaches, a long stretch of sand beach, near the east end of which the Portneuf River enters the St. Lawrence. Although the latter river is only deep for a short distance, it has one pool where salmon and sea trout visit. A saw-mill was in operation at one time above the pool, but the timber is exhausted, and it may now be made a permanent salmon river, by removing the dam to allow the fish to go up to spawn. Near this river, there is a good sea trout fishing place,

called Sault-au-Mouton, where excellent sport may be had in June and July. Now, to reach this place, it will be necessary to take the train from Point Levi to either Riviere-du-Loup or any station between the latter station and Bic. Then hire a boat with a pilot or guide to cross the St. Lawrence. Make for Portneuf River, put up camp, enjoy the scenery, prepare for fishing, sand-flies and mosquitoes.

## TROUT RIVERS AND LAKES OF QUEBEC.

The best trout stream north of Montreal is called the Black River. It takes its source from a Lake called *Lac a la Croix*, about ten miles from Mr. Leprohon's house, at the commencement of the colonization road leading to the Mattawan. It is not expensive to reach this gentleman's residence, where accommodation and supplies can be obtained. The river is a day's ride from the village of Joliette. It consists of a series of pools and lakes from the entrance into the Laurentian Mountains, until *Lac Sauvage* is reached, the latter lake being near its source. The following is the Editor's score of Brook Trout taken on the Black River. The fish averaging from a quarter to a half-pound each:—

June 15th, forenoon,	36 lbs.
" " afternoon,	20 "
" 16th, forenoon,	22 lbs. Rod broken.
" " afternoon,	35 lbs.
" 17th, forenoon,	20 lbs.
" " afternoon,	10 lbs.
" 19th, forenoon,	30 lbs.
" " afternoon,	25 lbs.—198 lbs.

Several miles of the river can be fished from its banks, and parts of it may be waded. The upper portions are composed of a series of lakes or ponds all of which teem with silver-scaled trout, but it is necessary to have a canoe or raft to fish from, therefore, it would be well to take an axe and auger; with these a raft can be put together in a short time, as there is plenty of dry wood accessible. Any kind of



artificial fly will answer on the Black River; the hooks need not be larger than No. 5 or 6, and two flies will suffice on a cast. Parties wishing to visit this mountain lake region to camp in June or July will have to take warm clothing, as the nights are generally cold. A description of the lakes and streams springing from the rocky mountains of the Assomption and Black River is new to sportsmen. Both of these rivers drain the great Laurentian lakes north of Montreal. Many gentlemen who spend their holidays in pleasure of this nature, never heard of this grand mountain camping ground. They generally visit the seaside, where, in many places, good brook trout fishing cannot easily be obtained. Sometimes they have to go as far from the coast to brooks and lakes, as it is from Montreal to the Black River.

wherein, with its fore feet erect, it is ready to pounce on any unlucky insect coming within its reach. These instances are understood by the watchful student of nature. What is wished to be inquired into, is the cause of a number of insects occurring evidently as parasites on a single plant, and all the insects having a predominating color, either red or black. This study is certainly interesting, and it has led to these remarks, from the fact that the occurrence have frequently been noticed on the common Milk Weed (*Asclepias*). Why are *all*, and there are quite a number of insects of different Orders, which frequent or feed on the plant during summer, red and black, or entirely red in color? A coleopterous insect (*Tetraopes tetraophthalmus*) is totally red above, with black elytral spots. Another coleopterous beetle, *Labidomera trimaculata*; elytra, red and black. The two latter feed on the plant. An insect of the order Hemiptera, occurs common on the Milk Plant in June. It is blood red in its early stages; indeed on several occasions last year, the above beetles and their larvæ in company with the red Hemipterous bug crowded the plant, and the contrast between the downy green leaves blending with the red and black colours of the insects was what led to this inquiry. Every entomologist knows the butterfly (*Danaïa archippus*), also red and black, in the imago form, whose caterpillar feeds on the Milk Plant. There are doubtless other parasitic insects which may have been overlooked. When the plant is in flower, it is an excellent one for the entomologist to visit—even at night it attracts a few rare moths. Lastly, it may here be remarked, that a Dipterous, or two-winged fly (*Tachina*)—having a red body, covered with hair, is fond of sneaking the flowers in daytime. There are some profound inquiries to be made in relation to the above insects and their connection in regard to color, with the plant as food. The larvæ of the archippus butterfly has no red colour, but the imago has it abundantly. In the transformation of *L. trimaculata*, its lar-

## Entomology.

### THE MILK PLANT.

WHY ARE ITS INSECT PARASITES RED AND BLACK IN COLOUR?—BY THE EDITOR.

Ministry is remarkable in species belonging to almost all Orders of Insects. It is also well defined in some of the reptiles, in the flower-frequenting spiders, and some species of Lepidoptera. With the exception of the common Tree Frog, (*Hyla versicolor*), which has the power of imitating the bark color of the tree it rests on; the spiders belonging to the Genus *Thomisida*, the bodies of which are imitative of the colors of the flowers in which they hide, little is known of the cause of certain insects that are parasites on plants, and which retain colors almost similar to each other. That the provision of the reptile and spider with this power of mimicry is in order to secure their food, is considered a strategy of nature. The tree frog is an arboreal animal, which can change its color to suit almost any place. The spider, in like manner lies like a wolf imbedded in the flower, preferring, in the neighborhood of Montreal, either white or pink and white,

væ has no red. The imago *Tetraopes* is found on the Milk Plant, and its larvæ is said to feed on it. The history of the red Hemipter is well worthy of investigation. In an article, written by me in the *Canadian Entomologist*, some time ago, relative to the food of insects as influencing their colors, am still of opinion that by careful study chemically, of those that feed on the Milk Plant, much of what was then contended for, may prove correct. This is written with a view to induce some of my many entomological friends to look further into the matter. Our columns are open to intelligent thoughts on the subject.

#### SALT SPRINGS IN LAKE ONTARIO.

In a correspondence which the Editor of this journal has had last August in the *Forest and Stream*, in regard to a salmon called *S. Wilmoti*, a Mr. B. of Grand Falls, New Brunswick, states, that "many reflecting persons" are "of opinion that they, (the salmon) frequent salt springs within Lake Ontario. Can any of our readers give us information regarding this statement? We are anxious to know where *Salmo Salar* goes to when liberated from where it was bred in the hatchery at Newcastle. B. informs us that "this point, however, it is hoped, will be shortly cleared up, as it is expected that facilities for close observation of the habits of these fish will be afforded by the Government. We will watch and see if these observations are made.

#### OÖLOGICAL COLLECTION.

Many persons who visited the late Montreal Industrial Exhibition, must have noticed two large show cases which contained a collection of the eggs and nests of North American birds. It was, indeed, one of the most interesting exhibits in the building. Few people are aware of the extraordinary care, labour and expense which the accumulation of a collection of this nature involves. It is the property of a gentleman who has been studying North American

Oology, for years past. He is still adding to it, and doubtless in a few more years, the greater portion of the species inhabiting temperate America, may be obtained. There is more in the study than can be seen at first sight. The classification of our birds is specifically difficult in certain groups, and it is thought a more natural affinity may be attained by a comparison of embryonic form and colour. This is the case with many species, such as Sparrows, Buntings and Finches, whose egg markings, in many instances, blend so similar that it is difficult to separate them, although the birds belong to distinct genera. The same may be said in regard to the warblers which are at present in a mixed condition as to classification.

#### RUFFLED GROUSE SHOOTING.

The Snipe and Woodcock are generally supposed to be the most difficult of all our game birds to shoot, and the sportsman who can bag his four out of five of these birds usually considers himself able to knock over anything that flies. It requires, however, only a day's sport with the Ruffed Grouse to convince him that he has over-estimated his prowess. Frequenting dense covers, and underwood, rising swiftly with a whirr of wings that sometimes startles the most experienced hunter, hard to hit, hard to kill, it is not to be wondered at that only the most enthusiastic sportsman should take pleasure in their pursuit. To the true lover of sport, however, there is no shooting more exciting, his pleasure is enhanced by the difficulty attending it; and, if after a day's hard tramp, he has succeeded in bagging a few brace, he thinks not of the fatigue which he has undergone, or the miles he has travelled; his endurance and skill have secured their reward; and as he throws down his bag containing the spoils of the chase, a happy smile proclaims the enjoyment of his sport; the pleasure of return with a well-filled bag.

WALLACE.



## THE BLACK SQUIRREL.

A black squirrel, in excellent condition, was shot on the farm of J. A. Simpson, Esq., Coteau, on the 13th January. It is said that this animal has not been seen in the neighborhood of the Coteau for years past. Another specimen, the gray variety, was shot on the 6th concession, Roxton Falls, on the 10th of January, by J. I. Newport, Esq., of this city. Although it leaves its hiding place on fine winter days in Western Canada, it is not fond of cold, and it seems strange that it should be abroad when the thermometer was so low.

## PROPER NAMES.

"*Capture.*—M. Fraser a attrapé hier une magnifique poule de prairies, sur la côte du Beaver Hall. Il est très rare de voir cet oiseau au Canada à cette saison de l'année. Il disparaît généralement vers le 20 novembre."

The above is from *Le Nouveau Monde*. The bird referred to is the Woodcock, the capture of which we noticed to in our January number. The Prairie Hen (*Cupidonia Cupido*) is a Grouse, and does not occur in this Province.

## PROVINCE OF QUEBEC.

## GAME IN SEASON—FEBRUARY.

Ruffed and Spruce Grouse; Ptarmigan; Wild Geese and Wild Ducks.

## FISH IN SEASON—FEBRUARY.

Whitefish, Salmon, Trout, Lake Trout, Brook Trout, Bass, Doré, Maskilongé.

## CANADIAN FISHERY LEASES.

A numerously signed petition by the inhabitants residing on the banks of the Rivers Restigouche and Metapedia has been presented to the Minister of Fisheries through Mr Beauchesne, M.P. for Bonaventure. The petition sets forth that at Confederation, the Federal Government assumed the right of leasing the inland rivers for angling. This assumption on the part of the Government, carrying with it many hardships to be borne by the settlers,

has been declared by the Courts of Justice to be illegal; the inhabitants therefore petition the Government not to renew the leases which have expired with 1880, nor to issue new ones. They point out that they have waited patiently for justice at the hands of the Department of Fisheries: at the same time they insist on their legal rights and refuse to acknowledge (as the law is at present) the leases granted by the Federal Government.

## BUCKLAND'S MUSEUM.

The late Mr. Francis T. Buckland, Editor of *Land and Water*, has bequeathed his valuable Museum of Economic Fish Culture to England, and on the decease of Mrs. Buckland, a sum of £5,000 will revert to the nation to be applied for the purpose of founding a Professorship of Economic Pisciculture in connection with the Buckland Museum, and the Science and Art Department at South Kensington, London.

FISH AND GAME PROTECTION CLUB  
FOR THE PROVINCE OF QUEBEC.

This Club held their annual meeting on Saturday, January 15, R. H. Kilby, Esq., President.

The following report was read by the Acting Secretary, J. H. Mathews, Esq.:

In March and April several seizures of game were made and the offenders fined; the large quantity of game thus confiscated (over a ton weight) was distributed among the charitable institutions of the city. Seizures were also made from three other parties. Through information given by the Club a great number of nets were confiscated during the past summer, principally round Vandrenil, where no less than 17 were captured. During the last session of the Quebec Parliament, your Committee, in co-operation with the Sherbrooke Club, made a vigorous attempt to have the present Game Law so amended as to do away with the spring shooting of ducks and other wild fowl which come to breed on our rivers and lakes, and a committee was named, consisting of Judge Connors, M.P., E. Monk and R. Stephens, to proceed to Quebec to watch our interests. Unfortunately, the amendment was not brought up until the last day of the session, when most

of the members supporting it had left, consequently the matter will have to be brought up again this year. At a meeting held November 24th, it was decided to get up a case as to snaring partridge, and at the next meeting the acting secretary stated that a case had been brought before the Police Magistrate, but that it had been dismissed, as his Honor considered there was some doubt as to the accused being able to tell whether the partridge had been snared or not. Your committee would here draw the attention of the incoming committee to the fact that over two-thirds of the partridge offered for sale in this city are taken by snares, many of them being decapitated to prevent detection. Mr. Enclid Roy, advocate, was thanked for his gratuitous service.

The Treasurer, Mr. W. H. Rintoul, then read his report, which shows that the Society is in a more prosperous state than it has been in for several years. The income for the past year was \$262, and the expenditure \$244.61, showing a surplus of income over expenditure of \$17.39.

The Club numbers 120 members.

The following are the officers for the ensuing year :—

J. C. Wilson, Esq., President; E. C. Monk, Esq., Vice-President; W. H. Rintoul, Esq., Treasurer; J. H. Mathews, Esq., Secretary.

Committee.—R. H. Kilby, Esq., H. R. Ives, Esq., J. H. Stearns, Esq., R. A. Alloway, Esq., Geo. U. Ahern, Esq., J. J. Redpath, Esq., T. J. Brady, Esq., E. B. Goodacre, Esq., T. W. Goodwin, Esq., A. N. Shewan, Esq., J. Johnston, jr., Esq., L. A. Boyer, Esq., J. B. A. Mongenais, Esq., T. R. Hall, Esq., J. B. Robertson, Esq.

#### CORRESPONDENCE.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST.

DEAR SIR,—On my arrival in Montreal a few days ago, I was delighted to see that you and a few other enthusiastic sportsmen had decided to supply a want long felt in Canada, viz: a paper devoted to the interests of that class of gentlemen who shoot and fish for true sport, and I feel sure that success will attend your efforts.

I must say I felt flattered when I received your request to contribute something, and only wish I had your facile pen to interest your readers. My summer of 1880 was spent in the N. W. T. of the Dominion. The 20th July last found me in the Duck or Riding Mountains, at the head waters of Bird's Tail Creek, about 51° N., and on the 101st meridian.

These mountains are covered with a dense forest of tall poplars and birch, and thick underbrush of hazel and raspberry, making it impossible to get through without cutting a trail in advance.—This 20th July was a very hot day. We had started at 6 a.m. with a train of thirteen heavily loaded carts, and by 11 a.m. had made about three miles, when a very peculiar noise saluted our ears. Knowing this forest to be full of bears, we at once came to the conclusion that we were in the vicinity of a family; sisters, cousins and aunts, of these affectionate creatures. The train was ordered to halt while the chief of the party and myself went forward to prospect. As we advanced the noise grew louder and louder, till we called a council of two, to decide what had better be done; face the enemy or draw on our reserves and advance in full force. While deliberating the chief happened to cast his eyes heavenwards and the mystery was explained—we had struck a heronry—hundreds of these birds were passing to and fro, and on going forward a hundred yards or so, we found the tops of the poplars covered with their nests, the young birds full grown but not able to fly, perched on the highest branches of the trees. Here in the heart of a dense forest, probably never trodden by man before, were thousands of nests of our common blue heron (*Ardea herodias* Linn). We cut down several trees and captured the young, which were cooked and eaten by some of our men with relish, probably because it was the first fresh food for three months. The nests were made of the small dead branches of the poplar and were placed as near the tops of the trees as possible. I kept two of the young birds alive for a few days, when becoming able to fly they took their departure. These mountains are full of small ponds and bottomless muskegs which swarm with lizards and small fish on which the herons feed, and on getting to an open space near the heronry we could see the old birds coming and going in every direction. Those coming home were stuffed to the bill with food for their young, making them present a very ungainly figure, as they lazily flapped their way toward the woods. On pushing our way through this mountain forest we discovered three good sized lakes about one half a mile wide and from one to two miles in length each. We tried them for fish, but only caught a few common chub. In your next issue I will try and give you some account of the game birds of the Little Saskatchewan and Bird's Tail Creek Regions.

Yours truly,

BIRD'S TAIL.

Montreal, Jan. 31, 1881.

## THE GREAT NORTHERN SHRIKE, &amp;c.

SIR,—With reference to an article that appears in your primary number, page 5, I beg to say that a male Shrike, (*Collyrio borealis*) was shot in a private garden in this town on the 14th of the current month. It had probably been attracted by the numerous English sparrows that now infest our streets, several of which it had killed before it was killed itself. For these sparrows, however, notwithstanding old country associations, I entertain no friendly feeling, inasmuch as they drive away our own native birds, Blue Birds, &c. And yet one cannot but admire their indomitable pluck. No severity of weather daunts them. During the exceptionally cold winter we are experiencing, with the thermometer indicating 18° below 0, and on some days with the mercury never reaching zero, they hop about with as much liveliness and self conceit as if they were "at home." Some other importations of *Fauna* and *Flora* into the Colonies from England are anything but desirable, e.g. the Rabbit in Australia, and the Scotch Thistle in America. A fine specimen of the Long-tailed duck, (*Heralda glacialis*), was shot on one of our back lakes last November.

VINCENT CLEMENTI.

Peterboro', Jan. 22, 1881.

The Long-tailed Duck occur abundantly in the Niagara River and Lake Ontario in winter and spring, in fact, it is the most common wild duck frequenting the Canadian Lakes. It is a pretty duck, but not at all palatable, for it is neither "fish, flesh nor good red-herring, although partaking largely of the nature of all these, being exclusively a fish-feeder."—En.

## SWIVEL OR PUNT GUNS.

SIR,—I am glad to observe that a correspondent over the signature "Wallace," in your first number directs attention to the "wholesale destruction of wild ducks on Lake St. Francis, by American pot-hunters by means of swivel guns." Such guns, or rather their use, for the purpose of killing wild fowl, is contrary to law in the Province of Ontario, and any person using them to kill game subjects himself to the penalty of twenty-five dollars for each offence. There surely must be sportsmen of the legitimate class living in the neighborhood of Lake St. Francis, who will take some interest in preventing such a flagrant breach of the

Game Act. We have no objections to see our brother sportsmen from across the border, whenever they chose to come to Canada, to enjoy themselves; but pot-hunters who kill for the market are always objectionable; and if they cannot, as they ought, be prevented from killing game, they should at least be compelled to do so according to law. I hope that no such illegal and unsportsmanlike modes of killing ducks, by swivel or punt guns of any kind will be allowed during the coming season.

Yours truly,

HAMMERLESS GREENER.

Ottawa, Jan. 27, 1881.

## THE REDPATH MUSEUM.

The building to be hereafter known as the Peter Redpath Museum, in connection with McGill University, we are pleased to state, is progressing, and after the removal of the Geological Survey's Cabinets, the citizens of Montreal may have one good collection to refer to. The present room is too small to contain the yearly increasing material, which is either purchased or donated to the University. Dr. Dawson deserves the thanks of the public for his efforts in procuring the specimens and advancing the this educational department.

## MONTREAL BRANCH ENTOMOLOGICAL SOCIETY.

The eightieth meeting of this Branch of the Entomological Society of Ontario, was held on the 8th inst., at the residence of the Secretary, Mr. G. H. Bowles. Mr. Canfield read a paper on the Coleoptera of the Island of Montreal. A number of insect dissections were also examined by the microscope.

A successful reunion of the Fish and Game Protection Club, of the Province of Quebec, was held at the St. Lawrence Hall on the evening of the 20th January. The *menu*, very properly, was largely composed of fish and game, and was served in a manner highly creditable to Mr. Hogan, the proprietor of the Hall.



## OUR GAME.

REPORT ON NOMENCLATURE.—*Continued.*

*Cariacus*—"Horns smaller, curving forward, the first spur short, curving upward; tail long; hoofs rather elongate; size smaller."

Now, in all conscience, what earthly object is achieved in all this but a general muddle? A sub-family is erected on the ground that certain forms have deciduous horns, or that they may want these ornaments, forgetting also that the so-called non-deciduous horns are deciduous at some time of their existence. This is certainly factitious, so we may discard the sub-family *Cervinae*, and thereby benefit true science.

Now, look at the genera: *Alces* and *Rangifer* are separated namely on the ground of a few hairs at the tip of the nose, which are by no means constant, and the possession of horns by the females of the latter. To follow the rule, the females might constitute a genera by themselves, as their horns are rarely palmate. Again, the presence or absence of horns is by no means a generic characteristic, scarcely even a specific one, as it is now known that there is a tendency among all these genera to horns in the female. *Cervus* and *Rangifer* are separated on the grounds of want of marked palmation in the former, and absence of antlers in the female sex. *Cariacus* is divided on the basis of a rather more elongated hoof, the angle of curvature in the antlers, and—horror of horrors—a faint difference in tail.

Now, gentlemen, here is not evidence sufficient to found a genera, though of undoubted value in the distinction of species. Formerly, great stress was laid upon the supposed fact that the young of the moose and caribou never exhibited the spotted coat, but the falsity of this has been shown by the researches of Capt. Campbell Hardy. This leaves no ground whatever for the puerile classification and nomenclature exhibited, and we may with propriety return to *Cervus* as the generic title of all our deer; there is no mistaking *Cervus Alces* for the elk or moose deer, *Cervus Rangifer* for the reindeer, *Cervus Canadensis* for the

wapiti, and *Cervus Virginianus* for our common species. Judge Caton has already recognized this fact, and took the initiative in his work on the "Antelope and Deer of North America."

Even to erect a new species is a grave mistake if it naturally coincides with any other. We have at present *Cervus (Cariacus) Cucurus* and *Cervus Mexicana*, which are but the common Virginia species slightly modified by range, climate, differences in food, etc. It is a well known rule of classification, but little recognized by the pseudo-scientists of the day—that to give birth to a new species—letting alone genera—it is necessary that characteristics should be observed that are prominent, constant and uniform in every individual, and wanting in all other individuals of the same class, and that cannot by any possibility be attributed to variation in habitat, food, climatic causes, etc. Let this, then, obtain with us as a body and as individuals.

Of birds, the same may be said in a general way as of mammals. But this report is already too long to admit of reviewing their classification as thoroughly as has just been done, following step by step down to well-known objects; such would be taxing an already over-taxed patience. Let us commence at once, therefore, with our grouse.

Under our present absurd method of classification and nomenclature, America possesses no less than six genera of grouse, exclusive of the ptarmigan. These genera are divided into twelve species, or six species and six varieties of species, viz: the spruce grouse and Franklin variety of the same, the dusky grouse, and a darker variety, the pinnated grouse and a variety, two forms of sharp tail, one sage, and three ruffled grouse.

The following table exhibits the different genera and the characteristics on which each is supposed to be based; the genus *Dendragapus* has been denied by one author, and relegated to *canace*, as he evidently felt that its discoverer was poaching on his preserves, but its existence is equally valid with those at present accepted.

GENERA AND CHARACTERISTICS OF AMERICAN GROUSE.

FEATURES.	GENUS.	GENUS.	GENUS.	GENUS.	GENUS.	GENUS.	GENUS.	GENUS.
	TETRAO.	CANAOL.	DENDRAGAPUS.	CUPIDONIA.	PEDICERETES.	CENTROCERCUS.	BONASA.	
TAIL.....	18 feathers; 2-3 length of wing.	16 feathers; about equal to wing in length.	20 feathers; 2-3 length of wing; sometimes more.	18 feathers; one-half length of wing.	18 feathers; one-half length of wing.	20 feathers; about equal to wing in length.	18 feathers; about equal to wing in length.	
TARSES.....	Feathered to the toes.	Do.	Do.	Do.	Do.	Do.	Feathered about $\frac{1}{2}$ their length with hexagonal scales anteriorly.	
TOES.....	Middle and claw longer than tarsus.	Middle, and claw as long or longer than tarsus.	Do.	Middle toe and claw longer than tarsus.	Do.	Do.	Do.	
HEAD.....	Indications of crest; pectinated processes over the eyes.	No crest; pectinated processes over the eyes.	No positive crest; pectinated processes over the eyes.	No positive crest, though sometimes apparent. Pectinated processes over the eyes.	Faint indications of crest. Pectinated processes over the eyes.	No positive crest; pectinated processes over the eyes.	Slight crest; no pectinated processes over eyes, being replaced by a row of short, stiff feathers.	
NECK.....	No unusual feathers on neck, nor true gular sac.	No unusual feathers on neck. No gular sacs.	Gular sacs present.	Plumes on neck; gular sacs present.	Slight indications of elongated feathers on neck. No gular sacs.	Stiffened feathers on neck; gular sacs present.	Plumes on neck forming a ruff; gular sacs wanting.	
BILL.....	Lengthened.	Slender.	Medium.	Medium.	Slightly stouter than capitonia, yet difference not always appreciable.	Lengthened. Resembles tetrao.	Medium	
INDICATIONS wanting in all other genera....	None.	Two less feathers in tail.	None.	None.	None.	None.	Stiffened feathers instead of pectinated processes over eyes. Well developed ruff.	

(To be continued).



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OPINIONS OF THE PRESS.

THE CANADIAN SPORTSMAN AND NATURALIST;  
William Couper, Editor.

We greet the appearance of this beautiful little periodical, the typographical appearance of which reflects the highest credit upon the printer, J. Theo Robinson. It is devoted to all subjects of sport and natural history, and if there is a possibility of its being able to keep up to the standard set down in the excellent programme, it will fill a mission of the highest utility. We take the liveliest interest in all ventures of this kind. The more publications of a special character that Canada produces the better for the country, and the more cause there is to be proud of her. We sincerely hope that the present publication will succeed; especially as it is confided to such good hands as those of Messrs. Couper, Dunlop and Wintle. The first number is really attractive, both typographically and editorially, several of the subjects being treated in the most interesting manner. The subscription price is only one dollar a year, which is ridiculously low, and at those rates the circulation should rise to the living standard of at least 10,000.—*Montreal Gazette*.

THE CANADIAN SPORTSMAN AND NATURALIST.  
—We have to acknowledge receipt of this meritorious Monthly Magazine; it is scarcely possible to over-rate the usefulness of such a work in our community, where everything takes a high pressure shape; few have leisure to cultivate such taste as that to which the Magazine is devoted. A tabulated list of the Ornithology of our mountain by Mr. E. D. Wintle is extremely interesting and valuable. The widening of the circle, so as to include the "Sportsman," is a good idea, and one calculated to strengthen the work. It is alike creditable to editors and printer, and we sincerely wish success to this new venture.—*Montreal Herald*.

THE CANADIAN SPORTSMAN AND NATURALIST.  
—This journal is most neatly printed in pamphlet form. It will devote itself to information regarding sporting and Natural history. One of its first articles on "Salmon and Trout Rivers and Lakes of Quebec, will be found most interesting. The journal will uphold well-defined game laws. One writer gives the names of thirty-eight species of birds he has seen on Mount Royal. We wish the new journal the success it merits.—*Montreal Daily Star*.

THE CANADIAN SPORTSMAN AND NATURALIST is the title of a handsome little monthly journal published in this city. It contains a great deal of information in a condensed form, and its typographical appearance is an irresistible invitation to peruse its pages.—*Montreal Post*.

THE CANADIAN SPORTSMAN AND NATURALIST.  
—A neatly printed journal is sent us from Montreal under the above heading. It contains the study of birds, insects, fishes, &c., and deals with a variety of subjects of interest for the sportsman and angler. We hail with pleasure the new comer in his jaunty dress and wish him long life and numerous subscriptions. It issues monthly at the very low price of \$1. per annum.—*Quebec Chronicle*.

THE CANADIAN SPORTSMAN AND NATURALIST is the title of a little journal to be issued monthly in this city and to be devoted to matters of sport and natural history, and the protection of game. It promises to be a very useful work, and the first number contains some very interesting articles.—*Montreal Witness*.

THE CANADIAN SPORTSMAN AND NATURALIST is the title of a very neatly printed and readable monthly journal just started in Montreal. We are sure it will be favorably received by all lovers of field sports. Hitherto sportsmen have had no organ exclusively devoted to their interest. This want will be no longer felt.—*Sherbrooke Gazette*.

THE CANADIAN SPORTSMAN is a new effort of somewhat unpretentious form; if properly conducted it will be the means of imparting a great deal of information to tyros concerning the game, &c., of Canada. Hitherto but little interest has been taken by the public as regards the preservation of game and this new little journal will doubtless excite some interest in the matter; it is edited by Mr. Wm. Couper, than whom few are better qualified to speak with knowledge. We trust that it will be appreciated and receive a deserved support.—*Canadian Spectator*.

CANADIAN SPORTSMAN AND NATURALIST.—  
Il nous fait plaisir d'avoir à signaler l'apparition à Montréal, en langue anglaise, d'une publication mensuelle, à peu près dans le genre de la nôtre. M. Couper, le rédacteur en chef, est naturaliste distingué. Longue vie au nouveau confrère.—*Le Naturaliste Canadien*.

THE  
CANADIAN SPORTSMAN  
AND  
**Naturalist:**

A MONTHLY JOURNAL.



MONTREAL, MARCH 13, 1881.

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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 3.

MONTREAL, MARCH 15th, 1881.

VOL. I.

## THE BEAUTIFUL GODBOUT.

The river known by this name enters the sea on the north shore of the Lower St. Lawrence, almost opposite Metis. We have had the pleasure of making two visits to it. Godbout Bay, like many other localities on that coast—where some good clear-water rivers flow into the sea—is, terrestrially speaking, composed of sand, mixed with decayed vegetable substances, which make excellent soil for the inhabitants to produce potatoes, &c. Indeed, Mr. N. A. Comeau, the resident guardian, has cultivated a good garden behind his residence. The river has always had the reputation of being good for salmon. On it, in 1875, the latter gentleman, in surface fishing, made the largest score of salmon ever killed by a single man in the world. This has already appeared in *Forest and Stream*, we, nevertheless, give it here, as some of our readers may not have seen it. It is too good to be lost:—

### COMEAU'S Salmon score on the Godbout:

Date.	Fish.	Weight.
July 8.....	7	80
" 9.....	57	634
" 10.....	25	282
" 11.....	34	361
" 13.....	40	428
" 14.....	25	253
" 15.....	16	172
" 16.....	37	394
" 17.....	16	186
" 18.....	28	286
" 20.....	27	273
" 21.....	13	124
" 22.....	20	198
" 23.....	6	63
" 24.....	3	30
" 27.....	3	33
" 28.....	2	19
" 31.....	1	26
	360	3842
Grilse.....	5	19
	365	3861

Nature has formed the rocky portion of the Godbout to allow its waters to fall gradually in some places, making excellent salmon rests, which are easily reached by an expert angler. A nervous man may, however, avoid approaching these lodges, from fear of falling into the rapid stream. But these places are familiar to the gentlemen who of late years fish the river. Each pool has its name, and several of the difficult places are now reached by means of platforms, which are annually fixed by the guardian. Allan Gilmour, Esq., of Ottawa, is the leasee of this river. In order to improve it, he, with excellent foresight, purchased the land on each side as far as the upper pool. He is thus secured against encroachment or poaching. A short distance up, on the left side, stands the pretty building called the "Camp," where the anglers reside during the season. It has several comfortable bedrooms, and a dining-room; the kitchen and other out-houses are adjacent. Mr. Gilmour has evidently expended a large amount of money on the improvement of this river. There are shaded paths leading to the pools, and where the river has to be crossed, a contrivance consisting of two boats on a sliding rope, is always at hand. In narrow passages in the pathway, iron railings are fixed into the rock on the river side, to prevent persons from tumbling into it. In several places along the path, pure spring water trickles from the rock. At each of these springs, a glass or tin mug is placed for the accommodation of the angler when passing by. This river was the favorite summer resort of the late Rev. Dr. Adamson, who was extremely fond of fishing. The little cabin which for many seasons was occupied by the reverend gentleman, still stands near Mr. Gilmour's "Camp," and by order of the latter, it is annually repaired, in commemoration of the angler.

Like all good salmon rivers, the tidal portion of the Godbout contain abundance of sea trout, many of large size. Indeed, it is well worth an angler's trouble to visit this locality for this sport alone. Mr. Comeau's house is comfortable, and one can enjoy a fortnight's recreation there to his heart's content. Godbout may be reached by sailing packet from Rimouski, on the 1st and 15th of June or July. The steamer "Beaver," which sails from Quebec, will take passengers who can land at the river.

#### FISH AND GAME CLUB BE VIGILANT.

In *Forest and Stream* of March 3rd, Mr. S. W. Goodridge, of Grafton, Vt., says:—"We have lots of trout (*Salmo fontinalis*) here which come from Canada. They are sent to St. Johns, and are afterwards hawked about in wagons over the country. They come from lakes on the north side of the St. Lawrence, between Montreal and Quebec." Mr. G. states that he has "fished one of the lakes in the St. Leon district for several years with success until last June." A lake which he calls Carolus, is, according to his statement, annually netted by market men. This is a serious charge, and the poachers should be watched.

#### QUERIES.

Can any of our readers inform us what difference is noticed in the flavour of *Salmo salar* occurring in the Maritime rivers, and the one bred in inland waters?

Do Woodcock (*Philohela minor*) and the Snipe, commonly called English Snipe, (*Gallinago wilsonii*), nest on the Island of Montreal?

We know that Shad (*Alosa*) pass annually from the sea by the St. Lawrence and Back Rivers. What distance inland have they been noticed?

#### ANSWER TO CORRESPONDENT.

R. B. S.—Your pencil drawing and description of a deer-head and horns represent an aged male of *Cervus Virginianus*, recognized by

sportsmen as a king or royal buck. Deer having horns of an abnormal form are not of common occurrence in regions where they are annually hunted; but in the wilds of Muskoka it is possible to procure many royal bucks.

#### FISH AND GAME PROTECTION CLUBS.

The following gentlemen hold office for the current year for the Eastern Townships; meeting at Sherbrooke:—E. T. Brooks, M.P., President; L. E. Morris, Vice-President; T. P. Buck, Secretary; T. J. Tuck, Treasurer. *Committee*—W. W. Beckett, G. Lucke, R. G. Lackie, I. F. Markill, Hunter Bradford, J. K. Woodward, W. A. Hole; J. W. Merry.

The following gentlemen hold office for the current year for the County of Argenteuil; meeting at Carillon:—Dr. W. H. Mayrand, President; A. Bell, Vice-President; William Gaherty, Secretary and Treasurer. *Committee*—T. C. Fields, M. Simpson, R. P. Cooke, I. Dale, S. MacDonald, Dr. Gaherty, George Simpson. Game-keeper—W. Gaherty.

#### MONTREAL GUN CLUB.

At the annual meeting of the Montreal Gun Club, held on the 11th ult., the following officers were elected for the year 1881:—President, Colonel Frank Bond; 1st Vice-President, F. X. Archambault; 2nd Vice-President, Alfred T. Rudolf; Secretary and Treasurer, R. Blackwood. *Committee*—Chas. S. Ritchie, P. E. Normandeau, R. A. Allan.

#### THE AMERICAN GOSHAWK.

A beautiful male of this species was shot at St. Laurent on the 28th of February. This falcon visit the neighborhood generally about January or the beginning of February. It is never seen near our Northern woodlands in summer. Its nesting-place on this continent is, so far, unknown.



## HYMENOPTERA OF THE ISLAND OF MONTREAL.

BY THE EDITOR.

The following insects were collected during the summers of 1879-80. This is the first published Canadian list belonging to the Order. The genera are arranged alphabetically, that future additions to the collection may be more easily classified:—

[Those marked with an asterisk belong to Saussure's sub-genus *Ancistrocerus*. I may here remark that *Crabro 6-maculata* is not distinct from *Crabro trifasciatus* Say.]

<i>Anglochloa pura</i> , Say.....	This bee is bright green.
<i>Agapostemon radiatus</i> , Say..	" " "
" <i>tri-color</i> , Lepel.	" " "
<i>Aldidamea producta</i> , Cress }	A small bee, common;
" <i>trifasciatus</i> , Lepel.	Mount Royal.
<i>Andrena fimbriata</i> , Smith....	Mount Royal.
<i>Apathus citrinus</i> , ".....	Common.
<i>Ammophila gracilis</i> , Lepel..	Abundant on Solidago.
<i>Bombus ternarius</i> , Say ....	A humble-bee, with cen-
" <i>terrestris</i> , Say.....	-tre of body red.
<i>Ceratina dupla</i> , Say.....	Abundant in May and
" <i>dupla</i> , Say.....	June.
<i>Cerceris nigrescens</i> , Smith..	A wasp, common in
" <i>nigrescens</i> , Smith..	June.
<i>Crabro chrysargineus</i> , Lepel..	Mount Royal, common.
" <i>cubiceps</i> , Packard....	" " "
" <i>trifasciatus</i> , Say.....	" " "
" <i>interruptus</i> , Lepel....	" " "
" <i>6-maculatus</i> , Pack.. }	" " "
" <i>nec</i> , Say.....	" " "
<i>Eumenes fraternus</i> , Say.....	" " "
<i>Gorytes phaleratus</i> , Say.....	" rare.
" <i>simillimus</i> , Smith....	" " "
<i>Haliictus rubricundus</i> , Kirby..	" common.
<i>Leucopis affinis</i> , Kirby.....	" uncommon.
<i>Lyrada subula</i> , Say.....	" " "
<i>Larra terminata</i> , Kirby.....	" rare.
<i>Melissodes desponsa</i> Smith..	" " "
<i>Megachile mendica</i> , Cress....	" " "
" <i>frigida</i> , Smith.....	" " "
<i>Megachile brevis</i> , Say.....	" " "
" <i>melanophlea</i> , Say }	var. with
" <i>melanophlea</i> , Say }	scape almost black.
<i>Osmia similima</i> , Smith.....	Mount Royal.
<i>Olymerus foraminatus</i> , Saus..	" " "
" <i>*Capra</i> , Saus.... }	on bram-
" <i>*leucomelas</i> , Saus.. }	ble, June.
" <i>*leucomelas</i> , Saus.. }	Mount Royal, on bram-
" <i>*albomarginatus</i> " }	ble, June.
" <i>*albomarginatus</i> " }	Mount Royal, on bram-
" <i>*albopaleratus</i> " }	ble, June.
" <i>*albopaleratus</i> " }	Mount Royal, on bram-
" <i>*tigris</i> , " }	ble, June.
" <i>*tigris</i> , " }	Mount Royal, on Soli-
" <i>*unifasciatus</i> , " }	dago, September.
" <i>*unifasciatus</i> , " }	Mount Royal, July 1st.
" <i>*Walshianus</i> , " }	rare.
<i>Prosopis affinis</i> , Smith.....	" " "
<i>Petroporus caeruleus</i> , Linn....	" " "
" <i>caeruleus</i> , Drury....	" " "
<i>Pompilus marginatus</i> , Say....	" " "
" <i>marginatus</i> , Cress....	" " "
<i>Philanthus salivagus</i> , Say....	" " "
<i>Tiphia inornata</i> , Say.....	" " "
<i>Vespa maculata</i> , Linn.....	" common.
" <i>maculata</i> , Saus....	" rare.
" <i>maculata</i> , Saus....	" " "

Those marked † belong to Saussure's sub-genus *Synmorphus*.

## GAME IN SEASON—ONTARIO.

Wilson's Snipe, Wild Swan, Geese and Wild Duck, with the exception of Mallard, Black Duck, Wood Duck, Blue and Green Wing Teal.

## FISH IN SEASON—ONTARIO.

Whitefish, Salmon Trout (*Winnoniche*.)

## GAME IN SEASON—QUEBEC.

Wild Swan and Geese; all Wild Ducks.

## FISH IN SEASON—QUEBEC.

Brook Trout, Whitefish, Salmon Trout (*Winnoniche*.)

## Correspondence.

## SALT SPRINGS IN LAKE ONTARIO.

Six months ago, before one thought of issuing this journal, the Editor wrote to Dr. Sterry Hunt to ascertain if salt springs existed in the bosom of the Lake. The object of the inquiry was in connection with *Salmo salar*—the common marine salmon—supposed to visit these brine springs, after escaping from the hatchery at Newcastle, Ont. Dr. Sterry Hunt's letter is important in connection with the theory that salmon, commonly called "land-locked" (*Salmo salar*), visit these places. The following letter proves the existence of salt springs in Ontario. The most interesting discovery will now be to trace the fish to the saline springs, and we trust that the Government will place the investigation in the hands of a competent person.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST:—

MY DEAR MR. COUPER,—Your enquiry about the existence of Salt Springs in Lake Ontario, in relation to the presence therein of a supposed variety of *Salmo salar*, interests me very much, from the fact that I have long known that the rocks in which the lake is excavated (the strata around it are nearly horizontal) are charged with saline matter, and give rise to brine springs along the northern shore. I have described and analysed many of these waters,\* which are often stronger than sea water. The Trenton limestone which forms the shore and

the bottom of the lake from Kingston nearly to Toronto, is full of such brines. Two borings at Kingston gave me waters holding in 1000 parts 52.25 and 13.83 of solid matters. At Hallowell, on the Bay of Quinté, two wells for salt-making exist, which give 68.64 and 36.08 of saline matters. At Whitby is a copious saline spring, which gave 46.30 parts. At Ancaster, near Hamilton, another old salt well, probably getting its brine from the underlying Trenton, gave me 36.69 of salts, while another locality at St. Catherines, where salt-wells were once bored down into the Hudson River or Lorraine shales which overlie the Trenton, gave three brines with 30.15, 36.81 and 50.60 parts of salts. So you see the whole north and north-west side of the lake is bordered and underlaid by soils charged with the salts of an ancient ocean, and doubtless there are many points where fish could find the saline matter which they may need. The ocean waters do not contain more than about 35 parts in 1,000 of salts, and are therefore less strong than some of those which we found on the shores of Lake Ontario. I shall be glad if these notes throw any light on the problem of the land-locked Salmon.

Very truly yours,

T. STERRY HUNT.

P.S.—The brine-springs which I have mentioned are no longer worked for salt, as they contain a larger proportion of bitter salts than Goderich or Syracuse brine, and are not very good for salt-making.

T. S. H.

\* In the "Geology of Canada," 1863.

#### SWIVEL GUNS.

SIR,—I happened to read lately in a number of your sporting paper, an article signed "Wallace," referring to the use of swivel guns in duck shooting, by Americans in our waters. I am personally interested in any measure which will preserve, for fair sportsmen, a little of that sport which is rapidly becoming a thing of the past, owing to the indiscriminate slaughter of our birds for the New York market, and it occurred to me that you or some of the readers of your paper might be able to give me some reliable details on the subject. I have had a good deal of conversation about it with Mr. J. Kerr, the member for Stormont, in the Ontario Parliament, and he is anxious to be furnished with information as to the size of the guns; their charges; the number of birds killed at one shot; the manner of approaching the

birds, and the way in which Americans in their steam-yachts reach the grounds. It appears to me that it is in Lake St. Francis that the principal destruction takes place. I have often heard the heavy firing, but have had no opportunity of seeing the methods adopted. There is no doubt that the birds, soon after their appearance, become so wild that fair sport is hardly possible. I believe that if we can procure the necessary information, something can be done to stop the nuisance.

I am, yours truly,

H. B. HOLLINSHEAD.

Toronto, 21st Feb., 1881.

The use of swivel or punt guns for the purpose of killing wild fowl is prohibited by law in Ontario. The American yachts, referred to in our correspondent's letter, come down the St. Lawrence, but from what point we have not been able to ascertain. It is an easy matter to secure a conviction against the offenders, and now that the attention of our sportsmen has been directed to their operations, we have no doubt these pot-hunters will not be permitted to prosecute their illegal traffic during the coming season.—Ed.

#### PIGEON SHOOTING.

DEAR SIR,—Can you give your readers any information as to why we are never visited now by the immense flocks of wild pigeons which were so numerous in this neighborhood about fifteen or twenty years ago? For many years pigeons in large numbers have been almost unknown in this part of the country, which formerly used to be one of their favorite lines of flight. About twenty-two years ago, with a double muzzle-loader, within a mile of the City of Ottawa, between the tenth of April and the fifteenth of July, I killed 3,500 pigeons on the bank of the Ottawa, in their flight from south to north. Of course, I did not miss one day, except Sundays, and I was always out at daylight and home about nine o'clock a.m. During the same year there was a wonderful migration of red squirrels northward. I have seen twenty of these little animals in the Ottawa River, within sight at one time, making their way towards the North Shore, which they were so determined to reach that nothing could induce them to turn back when ten feet on their journey. About the time mentioned, a

friend of mine, on one occasion, while an almost limitless flock of pigeons was passing over, loaded and discharged a single-barrelled muzzle-loader nine times between the arrival of the front of the flock and the passing of the rear-end, killing about one hundred birds. In the same length of time one could have fired a breech-loader 40 times. I imagine that the partial clearing away of the bush in their line of flight, which was always uniform and fixed, has had something to do with the comparative disappearance of pigeons from parts of the country where they were formerly so numerous during their annual transit. Under existing circumstances, with the improved guns of the present day, I should like to have a few days of the old style of sport, pigeon shooting, even though such shooting is not to be compared with wild fowl, snipe or woodcock shooting. I have a "hammerless, treble wedge fast gun," 28 inches long in the barrels, 12 bore,  $7\frac{1}{2}$  lbs. weight, full choked. It is only simple justice to the celebrated maker, W. W. Greener, of Birmingham and London, to say that this beautiful gun throws its shot, from the larger sizes down to the smaller, with great closeness and penetration at very long ranges. In fact, it is by far the most killing weapon I have ever handled. In beauty of finish, excellence of material, and complete effectiveness, it is a credit to the establishment in which it was manufactured. The ordinary charge for this gun is 3 drams of powder and 1 oz. of shot, and the heaviest charge,  $3\frac{1}{2}$  drams of powder and  $1\frac{1}{8}$  oz. of shot. I have, however, at 40 yards, made an extraordinary pattern with 2 $\frac{1}{2}$  drams of powder and  $\frac{1}{2}$  an ounce of No. 6 shot. I feel confident, that with my gun and the latter charge of Curtiss & Harvey's No. 6, or Pigou, Wilkes & Laurence's No. 4 powder, I can kill a single duck sitting on the water, every time,—a much more trying shot than on the wing—at 50 or even 60 yards. With such a gun in the old times, when pigeons were plenty, I could easily have knocked over six or eight dozen between break of day and eight o'clock on any fine morning during the great flights of the past. Yours truly,

HAMMERLESS GREENER.

Ottawa, Feb. 25, 1881.

Forest clearing along the base of the Laurentian mountains may partially cause the non-appearance of the Passenger Pigeon in large numbers of late years. The wild pigeon, being gregarious, like the western locust, an-

nually remove to pastures new. A locality near prolific beech trees is generally selected by the birds as a nesting-place. The same applies to tree squirrels, which instinctively migrate where food, especially beech-nuts, may be abundantly obtained.—Ed.

GRAVENHURST, ONT., 3rd March, 1881.

SIR,—This may interest you. A young man in my employ, informs me that while living on a farm further back in the woods of Muskoka, discovered that one of the cows had been milked. Determined to find out who the robber was, a strict watch was kept on the cow for some days without success, and still she was milked. One of the family happening to go out about the break of day, noticed the cow lying down. On approaching her an adult Porcupine was noticed in possession of her lacteal ducts, both animals resting quite contented. I have a Porcupine almost domesticated, which is fond of milk, but I never supposed that these animals could procure nourishment in the above manner. I have a tame Bear. He went into winter quarters on the 27th December. On the 30th I coaxed him out and gave him two slices of bread. He still keeps his bed and when I offer him an apple (his favorite bit,) he seems to care little whether he eats it or not. All he has had to eat since the 27th of December is three slices of bread and two apples. Does not my Bear beat Dr. Tanner?

Yours etc.,

R. B. SCRIVEN.

#### WILD FOWL OF THE NORTH-WEST TERRITORY.

DEAR SIR,

In the region between the Little Saskatchewan River and Bird's Tail Creek are innumerable small ponds and swamps, which, during spring, summer and autumn, abound with ducks of the following species, viz.:—blue and green winged teal, mallard, spoon-bill or shoveller, pin-tail and several others. This region appears to have been a great breeding place for wild fowl, and is so at present; but the advent of settlers, who have during the last two years come in great numbers, will probably drive the ducks to places more unfrequented by man. In the spring of 1880, the writer spent the month of June in this district, and having nothing in his commissariat but salt pork, beans and flour, and twenty-seven men to feed, was tempted to "go" for the ducks and



their eggs. During the first week of June we found the eggs fresh and the ducks in good condition.

On walking round a pond, say an acre in area, it would be no uncommon thing to find between thirty and forty duck nests, each nest containing from six to ten eggs.

The distance between the Little Saskatchewan and Bird's Tail Creek is about seventy-five miles, and the breeding country about fifty miles wide, and the whole covered with these duck ponds; so one can imagine the number of ducks hatched in this region.

But Oh! ye sportsmen who go to Le Grand Nord and Lancaster, if you could have one day's shooting in the North-West Territory during the month of September, and see the ducks, prairie chicken, snipe and yellow leg plover which abound in these ponds and their neighbourhoods, you would never again consider a dozen ducks a bag for a day.

Yours truly,

BIRD'S TAIL.

#### ENTOMOLOGICAL SOCIETY.

The 81st meeting of the Montreal Branch of the Ontario Entomological Society was held at the residence of the president, G. J. Bowles, on the 8th inst. Mr. H. H. Lyman read a letter from W. H. Edwards, of Coalburgh, West Virginia, who is the author of that beautiful work called "The Butterflies of N. America," asking information in regard to the *Pierida* of Canada, and comparisons of forms from the cabinets of the members were carefully made for that purpose. Mr. Canfield read notes on the genus *Calimorpha* found in Canada. Mr. G. H. Bowles, the secretary, having lately gone west to reside, a vote of thanks was carried for his useful services to the Branch.

## Our Game.

#### REPORT ON NOMENCLATURE.

In these seven genera we find only two that possess any marked characteristics not common in a greater or less degree to all others. The ruffed grouse has a well developed ruff, yet others have indications of the same, and feathers over the eye replacing pectinated pro-

cesses, which, however, are present in rudimentary form. The Canada grouse has two less feathers in its tail. Not one of these species noted as being without gular sacs, but show them in rudimentary form, even to the ruffed variety. We find nothing here that does not properly belong to specific instead of generic description; it is merely multiplying genera without cause. If any one species is entitled to special generic classification, it is the ruffed grouse alone. The sub-division of species which has taken place is factitious, and violates the rule of classification and nomenclature before mentioned, being based solely on changes due to climate and habitat, and even then oftentimes only on the abnormal peculiarities of a single individual.

Now as to the nomenclature: *Tetrao* means simply *grouse*, and is applicable to all grouse as a generic distinction. It does not mean *caperealzie*, as some of our ambitious naturalists would make us believe, but grouse generically; and when taken in connection with the specific title, amply and sufficiently explains the individual species. American genera are not recognized abroad. *Tetrao* being now universally adopted by all solid naturalists, and by the Royal Zoological Society, though for a time, and, indeed, until quite recently, they were inclined to run after false gods. When *Tetrao obscurus*, *T. pediacetes*, *T. cupido* (though *pinnatus* would be the better word), or *T. centrocerus* are mentioned, no one can mistake them to mean other than dusky, Canada or spruce, ruffed (or drumming grouse of the shades), Plains or sharp-tailed, pinnated, and sage grouse (inhabiting the centre of the continent). But instead we have *Dendragapus obscurus*, literally the "dusky tree percher;" *Canace canadensis*, the "Canadian songster," so called probably because its voice is almost unbearable;" *Bonasa umbellus*, or the "drummer of the shades;" *Pediactes phasianellus*, or "the pheasant that builds in the plain;" *Cupidonia cupido*, or the "cupid-like-enpid," (how appropriate), and

*Centrocerus urophasianus*, or the "bull pheasant of the centre of the continent."

These same naturalists have taken sportsmen repeatedly to task for calling *Oryx Virginianus* a partridge, when it approaches the European bird of that name nearer than to any other species, and then they turn about and bestow upon it an even greater misnomer, that of "quail," a bird far more distantly related; it is neither the one or the other, but simply a colin.

Then, too, the application of the name "pheasant" to our ruffed grouse is sneered at and derided in every way, they telling us there is not a single pheasant form in all the great American continent; yet, with wonderful consistency, these would-be teachers have given us, under scientific appellations, three pheasants, to-wit: the wild turkey as belonging to the family *phasianidae*, the "pheasant that builds in the plains" (sharp-tailed grouse), and "bull," or "chief pheasant of the centre of the continent," (sage grouse).

If one is wrong, all are wrong; a misnomer rendered in good or bad Latin and Greek is no better than when rendered in simple Anglo-Saxon. A grouse is simply a grouse and nothing more, and as such should be known; and so, too, a colin is but a colin. All grouse sprang originally from the one germ, and all possess in the same general way, the same general characteristics, habits, modes of life, etc., modified only by differences in surroundings, food, climate, etc. Even the ptarmigan, when removed for a time from the region of snow, fails to renew his white coat with the advent of autumn, and it is nothing strange that the habitation of any one region for any period of time, with difference in food, enemies and in surroundings should work changes appropriate to surroundings and enforce characters adapted to individual wants.

Gentlemen, we believe our game merits better treatment in the future than in the past; and classification and nomenclature in pure

and simple form will aid the people at large to the better study of species, their habits and their wants, and the better to understand the value of laws in their behalf. Let us turn the cold shoulder to weak minded youthful enthusiasm whose sole end is self gratification. Let us call our deer a deer, and our grouse a grouse, whether speaking of them scientifically or vulgarly. The tendency of true science to-day is towards conformity instead of, as in the past, multiplicity, and it is our province to aid and abet this end.

In accordance with these views, we submit the following nomenclature of a few species of our game—reserving the balance for future consideration—and ask its adoption and habitual use by sportsmen.

#### DEER GENUS.

Elk (*Cervus alces*), commonly called moose. This animal is identical with the elk of the old world, and should be so called, although his native American name, moose, is not a misnomer.

Wapiti (*Cervus Canadensis*), improperly called elk, and grey moose. This is an American form, probably having no representation in any other part of the world. The name elk should never be applied to him, as it belongs to another species.

Deer (*Cervus Virginianus*), also called Virginia deer, Red deer and American deer.

Caribou (*Cervus tarandus*), also called woodland carabou, woodland rein-deer and rein-deer.\*

#### GROUSE GENUS.

Grouse, or pinnated grouse (*Tetrao cupido*), also called prairie chicken or prairie hen.

Ruffed grouse, (*Tetrao umbellus*), improperly called partridge and pheasant. As this fine bird is neither a partridge nor a pheasant, but a grouse, he should be respectfully addressed by his own name.

Spruce grouse (*Tetrao Canadensis*). Synonyms—Canada grouse, spotted grouse, black grouse, and Canada partridge and spruce partridge. As it is not a partridge, of course

these last two names will not be applied to this bird by an intelligent person.

Sharp-tailed grouse (*Tetrao pediculates*), sometimes called prairie hen or chicken, and sharp-tailed partridge.

#### COLIN GENUS.

Colin, or Virginia colin (*Ortyx Virginianus*). Synonyms—Quail, partridge, Virginia quail, Virginia partridge, Maryland quail or partridge, and bob-white.

These synonyms are all inappropriate or belong to other birds, except the last, and should not be applied to this excellent and useful species of game. Bob-white is not inappropriate, and has been used considerably of late by certain enthusiastic name-makers, but we like the name Colin best. It is euphonious, easily spoken and written, and has the merit of age and the claim of priority. Webster defines colin: The American partridge—*Perdix Virginianus* or *Ortyx Virginianus*, and gives Baird as authority. Chambers' Encyclopedia says: Colin—see Virginia quail. On turning to that page we find: Virginia quail or Colin (*Ortyx*) a genus of birds of the family *Tetraonidae*, closely allied to the quails and partridges, but differing from both. \* \* \* The best known species is the Virginia colin (*O. Virginianus*), &c.

Why this old and appropriate name has been dropped is an enigma, but the propriety of reviving its use is clear.

\*NOTE.—There is another variety inhabiting the North, viz: the Barren-ground Caribou (*R. Greenlandicus*). It is smaller than the woodland, and may be the true rein-deer of the Lapps. Its range is generally on the plains north of the limit of pines, but an occasional specimen has been shot about one hundred miles north-east of Quebec. I am informed that two well-defined species are found in Newfoundland. The horns of the barren-ground are more typical and lighter than those of the woodland.—Ed.

(Concluded.)

#### OUR FOREST TREES.

We have given, during the first three months of this journal's inception, a reasonable paper on the Game Nomenclature of Canada and the adjacent States. We now change the matter in order to give our readers information regarding our Forest Trees.

WHITE PINE; *Pinus strobus*.—The tallest and most stately tree of the New England forests. Full grown trees vary in height from 100 to 200 feet, and Dr. Dwight mentions one in Lancaster, N. H., which measured 264 feet, a mast was made from a white pine on the Penobscot River in Maine, which after being hewn was 90 feet long, and 3 feet in diameter. The qualities of the wood are lightness, softness, and durability; and for the extent and variety of its uses no other timber approaches it. In the construction of a dwelling it may be used with advantage in every part except the floors. It is little known in the Southern and South-western States. The pine forests of Maine, New York and Pennsylvania, once the chief sources of supply of this invaluable timber, are rapidly disappearing, and we are now deriving large supplies from Michigan and Canada.

PITCH PINE; *Pinus rigida*.—A smaller and less attractive tree than the preceding, with rough bark and deep green foliage. It is commonly 40 or 50 feet high, and 1 or 2 feet in diameter at the base. A few trees are still standing in Massachusetts that are 100 feet in height and 3 to 4 feet thick. It is largely used for floors of houses for which purpose it is not inferior to the southern pine. Unlike the white pine, it is very durable in damp situations, and is therefore used for sills, railroad ties and mill timbers. Its resinous nature makes it valuable for fuel.

HEMLOCK SPRUCE; *Abies Canadensis*.—This is the most beautiful of all our evergreens, and in early summer perhaps no tree rivals its rich and varied verdure. It is a favorite tree in ornamental planting, and is well adapted for hedges. It grows to the height of 80 to 100 feet. The wood is used in the Eastern and Middle States for the frames of houses, for rough boards and plastering lath. The bark is much used for tanning leather, and is mixed with oak bark to produce the best results.

(To be continued.)



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AGENTS AND CORRESPONDENTS.

JAMES T. BELL, Prof. Mines and Agriculture,  
 Albert University, Belleville, Ontario.  
 MR. CHARLES BAILLIE, Fishing-Tackle Manu-  
 facturer, 113 Charlotte St., St. John, N.B.  
 JAMES HOPE & Co., Booksellers, &c., Ottawa,  
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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 4

MONTREAL, APRIL 15th, 1881.

VOL. I.

## OUR SUCCESS.

When this journal was issued in January, it was with a sanguine anticipation that it would be well received by our Canadian people, among whom are many true sportsmen and students of Natural Science. We have not been disappointed; the list of subscribers has steadily increased, and we have now several of the most intelligent men in the Dominion supporting it. The periodical is therefore a success. We have a clear path before us, and our promises will be fulfilled.

## THE MINGAN RIVER.

Mingan is an old Hudson Bay trading post, in bye-gone days the most important and remunerative belonging to the Hudson Bay Company. A short distance east from the store houses, the good old river enters saltwater; one may say almost opposite the west point of the Island of Anticosti. Correctly speaking, the river has but two pools; yet, when there is a good run of fish, with proper management, three rods may be employed with comfort. There is no house near the pools; the surroundings have, therefore, wild charms to a stranger, and these arise principally from its historic associations as a camping-ground and retreat of British military officers from the Garrison of Quebec. Between the coast and the falls, the river takes the form of a crescent. A tributary enters it on the left, called the "Manitou," having a pool and fall of ten feet. Doubtless, salmon pass through this branch to their spawning-beds. At the base of the "Manitou" falls, we caught sea and brook trout, and it was here that we obtained the knowledge that *Salmo fontinalis* visited the sea. When Mingan was visited by us in 1868, the river was leased by Sir Greville Smyth, of England. The following occurs in our note-book:—

Arrived on July 16th, and was hospitably received by Peter Mackenzie, Esq., in charge of the post. The river, although narrow, is pretty as one follows it inland. It has abundance of sand-banks at its mouth; a grand estuary where the best of sea trout fishing can be had at this season. A tributary called the "Manitou" enters it about half-way from its entrance to the sea, and the fishing-pools are of easy access.

The gentlemen then fishing it, were almost daily tormented by Indians representing that they had nothing to eat, consequently they were supplied with as much food as Sir G. Smyth and his party could spare. But the supply of salmon given to them by the anglers was not considered sufficient to satisfy the Indians in camp at Mingan. One of the crafty aborigenes circulated a report among the tribe that he had seen a white man gaff a salmon in the whirlpool at the base of the falls. The report took well among the hungry Indians; and they at once determined to follow the white man's example. They notified the fishery guardian of their intention, and, on the following Sunday, a number of Indians entered their canoes to proceed to the falls where they speared several fish before the guardian could prevent them. The whirlpool of the Mingan is an extraordinary pot or round hole at the base of the fall, where a great force of water is kept in a continual circular motion. In this pot or whirlpool, in July, innumerable salmon circle, each awaiting its chance to leap to the first lodge. Here then, with spear in hand, did the Indians take their sweet revenge, procuring all the fish they required. The Mingan Indians should not then go to the pool for salmon, they were allowed by the Government the privilege to net trout near the mouth of the river. However, this grant appears to have been disregarded by them. They had trout

nets, but were too lazy to use them; they always prefer the spear.

The Labrador Indians state that the country in which they reside belongs to God and themselves. They are, therefore, suspicious of strangers occupying the rivers. These people come down invariably to the south coast in summer to trade off their furs, and attend the mission. They return to their hunting grounds in August and September.

#### MIGRATION OF SHAD.

In the March number, we gave a query, asking for information as to the distance Shad has been seen in inland waters. We are told that this fish has been taken in Lake Ontario, near Hamilton. Some of our readers may have been puzzled regarding the question, but our object was to show that if Shad migrated annually from the salt water to Lake Ontario, therefore there cannot be any obstacle in the way of Salmon bred in Ontario from reaching the sea.

#### THE GEOLOGICAL MUSEUM.

In 1877, the Hon. Mr. Mills, then Minister of the Interior, introduced a Bill in the Commons of Canada, "To make better provision respecting the Geological Survey of Canada, and for the maintenance of the museum in connection therewith." The Act was carried by the late administration. The removal of the Geological Survey from Montreal to Ottawa was then decided by sec. 6, as follows:—"The Governor in Council may, whenever he thinks fit, direct the removal of the Geological Museum, and the officers and others connected with the Geological Survey Branch of the Department of the Interior, to the City of Ottawa." This is now being carried out by the present Government. Referring to sections 2 and 3 of the Bill it will be seen that a new feature appears—viz: Zoology—in fact the Hon. David Mills specially framed it (Dominion Statutes, 1877, chap. 9, p. 49) to

include all branches of Natural History, in order to form a museum of a National character, useful for reference to all interested, and likely to prove beneficial to the general public of the Dominion. It will therefore be seen that the intention of the Government in removing the Geological collections permanently to Ottawa, is to establish near the seat of Government, a museum similar to that of the Smithsonian Institution, Patent Office and Department of the Interior at Washington, in the United States. This is doubtless a correct view of the matter. If Mr. Mills' Bill is legally and thoroughly carried out, Montreal will certainly lose the benefit of the Survey collection, but in future, as a National Museum, the Dominion, as a whole, will be fully compensated. It would be well, however, for the Government to consider the propriety of presenting duplicates of minerals and fossils from the Surveys Collection to the new museum of McGill University, where the citizens of Montreal and interested visitors could have an opportunity of examining them.

#### QUERIES.

Among the wild ducks occurring in the Dominion are three species belonging to the genus *Bucephalus*, viz: Barrow's Duck, or the Iceland Golden-eye, (*B. Icelandica*, Baird); The common Golden-eye, (*B. Americana*, Baird). [The second species has its white cheek-spots almost circular, while the cheek-spots on *Icelandica* are pyriform,] and the Butter-ball or Buffle-head (*B. albeola*, Baird). Barrow's Golden-eye nest in trees, entering a hole like the wood duck. A nest of the Iceland or Barrow's duck was found in a tree at Missisquoi Bay, in the Province of Quebec; it contained nine eggs. Can any of our readers give us information regarding the nidification of the common Golden-eye and the Butter-ball? We notice that the Michigan Sportsman's Association have lately placed the above ducks under the old genus *Fuligula*.



In a published list of birds found on the Island of Newfoundland, by Henry Reeks, F.L.S., occur two Western ducks, viz :— the Gadwall (*Chaulelasmus streperus* Linn), and the baldpate (*Mareca Americana* Gmelin). The latter is stated to be a common summer migrant. To our knowledge the former has not yet been shot in the Province of Quebec, and the latter is extremely rare. We would be thankful for further information regarding their occurrence in Newfoundland.

How many species of Black Bass occur in the Province of Quebec? Agassiz described a Black Bass from Lake Superior which attains a large size, averaging from fifteen to thirty pounds. We think he named this species *Huro Vulpus*, and it was at one time common in Ashbridge's Bay Marsh, near Toronto.

#### WOODCOCK GROUNDS.

We have always found it difficult to procure correct information regarding the best woodcock covers in this Province. Sportsmen who know of good localities which they visit annually, keep quiet on the subject. There are, doubtless, many excellent woodcock grounds within a day's trip from Montreal, and it is our intention when they are discovered, to give the lovers of this kind of sport, the benefit, that they may visit them in proper season. We have been informed that there are several good covers on the south side of the St. Lawrence, viz : La Prairie and Lacadie. On the south side of the Richelieu, at Rouville, St. John Baptiste and St. Pie. That the springs where woodcock occur in the latter region, embrace a circumference of twelve miles. Now, gentlemen, do not be jealous in regard to this matter; give us information that we may be led to localities where good sport can be obtained.

#### MESSINA QUAIL.

An order has been sent from this city for 200 Messina or migratorial Quail. On their arrival it is intended to release the birds in the neighborhood of Lachine.

What became of the Quail which were brought to Quebec and Montreal last year for acclimatization? We are anxious to hear from those interested in their introduction.

## Correspondence.

### "THE BARRED OWL."

To the Editor of THE CANADIAN SPORTSMAN AND NATURALIST:

DEAR SIR,—Referring to the article under above heading in January number, the following statement may not be uninteresting to your many readers:— The Barred Owl, *Syrnium nebulosum*, has been taken this winter in and adjacent to this city in unusual quantities. So much so that, that mythical personage yclept "the oldest inhabitant" fails to recall to his or her memory anything like it. The cause of the same occurrence in such abundance in the vicinity of Montreal, you say, may possibly be on account of the House Sparrows, which have multiplied greatly of late; but as we have none of the last mentioned birds in this province, and as this has not been considered by any means a severe season, some other reason must therefore be assigned. The above owl is found here every winter, more or less.

Mr. J. H. Carnall, taxidermist, of this city, has had in his store, this winter, "at one time seventy-five" Barred Owls, and has put up since last November over "one hundred skins." The greater number were captured in the months of November and December last. Can any of your readers account for this phenomenon? In addition to the above Mr. C. has mounted 22 Great Horned Owls, *Bubo Virginianus*; 9 Snowy Owls, *Nyctea nivea*; 12 Saw Whet Owls, *Nyctale Acadia*; 2 Long Eared Owls, *Otus Wilsonianus*; 1 Richardson's Owl, *Nyctale Richardsonii*, and several Hawk Owls, *Surnia ulula*. So you see STRIGIDAE have been well represented. About a fortnight ago *S. nebulosum* was seen in King's Square, situated in the centre of this city.

I am, yours truly,

R. ROWE.

St. John, N.B., March 7, 1881.

The above is from an esteemed friend, a sportsman and a lover of Natural History; one who has an acute eye when viewing Ornithological or other objects. When he says that

the European Sparrow does not occur in St. John, and that the season "has not been considered by any means severe," we believe him. The Barred Owl, however, visited several Canadian cities during the early part of the winter, and they were seen killing House Sparrows in the city of Montreal. We advance three reasons in order to account for the unusual occurrence of STRIGIDÆ in cities. 1st. It may have been a prolific year, commonly called a "metropolis year" of the species. 2nd. The severe weather in the northern woodlands would probably prevent an extraordinary number of the birds from obtaining food. 3rd. The introduction of the Domestic Sparrow having induced other rapacious birds, such as the Shrike, &c., to remain with us during winter, leads to the supposition that FALCONIDÆ and STRIGIDÆ would visit the cities to have their share of the importation. We are at a loss to account for the occurrence of the Barred Owl in such numbers in the city of St. John. It occurs to us that a prolific year and want of winter food of those bred on the Northern coast of the Lower St. Lawrence, would cause them to make their flight to more southern localities, consequently crossing the range of the latter city.—Ed.

#### RARA FELIS.

There was trapped last week in the Township of Dummer, within a few miles of the Town of Peterboro', a very rare animal—rare, at least, as far as this County, or perhaps, I may say as far as this Province, is concerned, viz.: a red Lynx. It is a male, and judging by its teeth, at least six or seven years old. Its measurements are as follows: Length from ears to insertion of tail, 30 inches; height to shoulder, 20 inches; breadth of forehead 5 inches; length of tail, 6½ inches. Weight 30 lbs. The neck is immensely muscular, but the eyes, claws, and teeth are not so large as those of the Canadian Lynx, *Felis Canadensis*. The color is reddish fawn, mottled with brown, with wavy stripes on the inside of the legs; a dark stripe along the back; tip of tail black; throat white; with whitish spots at back of either ear. The man on whose

farm the animal was trapped, had noticed its spoor, very different from the tracks of the Canadian Lynx, for four or five years past, and had shot at it last year, one of the buck-shot being found in the body after it was killed. I saw it soon after it was brought into town, as well as after it had been flayed. It was in excellent condition, quite fat. It had recently killed two sheep, and had probably lived during the winter months on hares (*Lepus Americanus*) which abound in the neighborhood; occasionally, perhaps, varying its menu with *perdrix au naturel*, or a stray squirrel or other small rodents.

VINCENT CLEMENTI.

Peterboro', March 24, 1881.

NOTE.—The above is probably the American Wild Cat, *Lynx rufus*, an animal not known to occur in the Province of Quebec. About twenty years ago, it was more abundant in Western Canada. We are sorry to learn that this rare quadruped has been flayed, as the specimen would be quite an acquisition to any Canadian Museum. If the skull is not lost we would be glad to examine it.—Ed.

#### DEER'S HORNS, &c.

SIR,—Thank you very much for being so kind in answering my inquiries relative to my Buck Heads. I am not, however, satisfied for the following reasons:—I understand you to say that no deer can be a Royal buck, but an old animal. Now, being a Taxidermist, in my practice, I have found five heads with the same kind of horns, and I am fully satisfied that one of them was not more than three and a half or four years old. Then the ears are smaller and broader between the eyes, than in *Cervus Virginianus*. Besides my buck has a slight elevation on the nose, at the juncture of the bone and cartilage which I have never noticed in *C. Virginianus*. I wish to tender my thanks for your insertion of the Ontario Game Laws; I feel satisfied that Ontario sportsmen will be glad to see it. I notice that you mention a Goshawk having been shot at St. Laurent on the 28th Feb. On the 16th March, I received a very handsome specimen which I have set up. They are not plentiful here; merely showing themselves occasionally. Can you tell me, has a Hawk the power of reasoning? I sometimes think they can reason to a certain extent. I have a tame Sparrow Hawk which is in the

habit of hiding its surplus food ; it always hunts it up when in need of it again. I also possess two great Horned Owls and they also hide their food when satisfied, returning to it again when hungry. Watching the movement of these birds led me to think that they must be able to reason in a small degree. I hope to be soon able to send you an electrotype of my Deer head, so that you can insert it at the head of my advertisement.

I am yours, &c.,

R. B. SCRIVEN.

Gravenhurst, Ont., }  
25th March, 1881. }

NOTE.—Mr. Scriven is just the kind of man we want to hear from periodically. His questions are so far interesting and in order, as they invariably lead to the advancement of our knowledge of Natural Science. In regard to the Deer horns, our answer was given in harmony with his description and drawing. We could not answer otherwise, as all the North American *Cervidae* are described. It may be possible that the heads in his possession are those of a supposed deer called the Little Moose, said to occur in the northwestern forests. We have no knowledge of the animal excepting from correspondence. We do not believe birds can reason. They are doubtless provided with acute instinct, and the hiding of food when not required by them is a force of habit derived from the stability of the species through ages past. The crow family possess it to an extraordinary degree ; they not only hide their surplus food but steal and hide every light article they place their eyes on. For instance the European Jackdaw and our Blue-Jay.

SIR,—I see in your March number a letter, signed "Hammerless Greener," in which he states he has made an extraordinary pattern with  $2\frac{1}{2}$  drams of powder and  $\frac{1}{2}$  an ounce of shot ; but he does not say anything about the penetration. For the last five years I have fired upwards of ten thousand shots at Pettit's Pads, and lately at a Force Gauge made on the same plan as the "Field Gauge" used at the London Gun Trials of 1879, excepting I use a pendulum (3 feet long) with a circular plate 5 inches diameter, instead of a 10 inch plate, attached to a platform suspended by four rods.

I have tried  $2\frac{1}{2}$  drams of powder (C. & H's No. 6) and  $\frac{1}{2}$  an ounce of No. 6 Newcastle Chilled (270 pellets to the ounce) with three 12 bores by W. W. Greener. I send you the average of 12 shots with the above charge, and also the average of charges that suit my guns best, so that your correspondent can compare them. I always fire from a rest in which the gun is held, the recoil being taken by a leather breeching passed round the heel plate:

Hammerless Gun, 30 inch barrels, weight 8 pounds.						
Charge.	Pellets on Gauge, 5 in. diam r.	Force per pellet.	Final velocity, ft. per sec.	Pattern, 10 in. circle.	Pattern, 30 in. circle.	
$2\frac{1}{2}$ d's p'r, $\frac{1}{2}$ oz. s't.	4	2.12	572	8	97	
$3\frac{1}{2}$ " " 1 " "	14	2.41	651	55	222	
No. 2 Gun, 30 inch barrels, weight 8 pounds 10 ozs.						
$2\frac{1}{2}$ d's p'r, $\frac{1}{2}$ oz. s't.	2	1.95	526	11	63	
$3\frac{1}{2}$ " " 1 " "	10	2.37	640	43	204	
No. 3 Gun, 28 inch barrels, weight $7\frac{1}{2}$ pounds.						
$2\frac{1}{2}$ d's p'r, $\frac{1}{2}$ oz. s't.	7	1.80	486	16	71	
$3\frac{1}{2}$ " " 1 " "	9	2.23	602	47	198	

Out of the thirty-six shots fired, four balled with No. 3 gun, and one with No. 2 gun. Throughout the trial the pattern was very uneven, being in clusters, appearing as if the shot had balled on leaving the gun and separated a few yards in front of the target. According to my experiments a force of 2.40 is equal to about 30 sheets of the pad. Could "Hammerless Greener" suggest any other charges, etc., I would be most happy to give them a trial at my force gauge and report the result through your columns, providing you would kindly grant me space.

Yours truly,

12-BORE GREENER.

Lachine, P.Q., April 5, 1881.

## INSECTIVOROUS BIRDS.

ARE THEY BENEFICIAL TO THE FARMER AND FRUIT GROWER.

SIR.—In the Eleventh Annual Report of the Entomological Society of Ontario, the President, Wm. Saunders, in his annual address, states his conviction that but comparatively little help is got from birds in keeping in subjection injurious insects, and having examined the contents of the stomachs of a large number of birds, he has only found occasionally an injurious insect therein. He mentions the swallows, *HIRUNDINÆ* ; kingbird, *Tyrannus Carolinensis* ; pewee, *Sayornis fuscus* ; night-hawk, *Chordeiles popelue* ; yellow warbler, *Dendroica astiva* ; red start, *Septophaga*



*ruticilla*; red-eyed and yellow-throated vireos, *Vireo olivaceus*; and *V. flavifrons*; woodpeckers, PICIDÆ; blue bird, *Sialia sialis*; cat-bird, *Galeoscoptes Carolinensis*; brown thrush, *Harporhynchus rufus*; sparrows, FRINGILIDÆ; cuckoos, COCCIDÆ; nuthatch, *Sitta Carolinensis*; chickadee, *Parus atricapillus*; kinglets, SYLVIDÆ; meadow-lark, *Sturnella magna*; Baltimore oriole, *Icterus Baltimore*; wren, *Troglodytes ædon*; black-birds, ICTERIDÆ; and especially the Robin, (*Turdus migratorius*) as a great fruit thief, destroying a far greater quantity than it would eat, therefore, should not be protected by legislation. I trust the above extract will induce readers of the *Canadian Sportsman and Naturalist* to give their experience respecting the usefulness of Insectivorous birds to farmers, fruit-growers, and gardeners.

E. D. W.

Montreal, March 28th, 1881.

The above-named birds are all insectivorous, but the question regarding their being beneficial to agriculture is a matter which we have always contended, was overstretched. Mr. S. A. Forbes, an American naturalist, has examined the stomachs of 150 birds of the Thrush family, with quite unexpected results. "Forty-one of these were Robins; thirty-seven Cat-birds; twenty-eight Brown Thrushes; eight Alice's Thrushes; six Swainson's Thrushes, and one Wilson's Thrush. They were shot in various months from March to September and during four successive years. The number of specimens is, of course, too small to allow conclusive generalization; but as no equal number of specimens has been previously studied with equal care, it will probably be fair to state some of the result as hypotheses, more or less probable, but requiring verification by further study. The most fruitful peculiarity of the method used was the careful estimate, for each specimen (after a critical microscopical examination of the contents of the stomach), of the relative amounts of all the elements of the food, and the subsequent averaging of these ratios for the species. By this means I determined the hitherto unsuspected fact that the family is inordinately destructive to predaceous beetles (HARPALEINI), seven per cent. of the food of the 150 specimens consisting of these highly beneficial insects. When we remember that one predaceous insect must destroy many times its own bulk of other insects during its life, we see the importance of this fact in respect to the economical value of these birds. Between the TURDIDÆ,

and other families, I can make only the following crude comparison. Of the 150 Thrushes examined, forty-six per cent. had taken CARABIDÆ, while of 194 birds of other families in whose stomachs insects were found, less than five per cent. had eaten these Coleoptera. The worst sinner in this respect was the Hermit thrush; while the Alice thrush and the Wood thrush had eaten comparatively few. Curiously the ratio of CARABIDÆ continued undiminished during the fruit season when the total of insect food fell away very rapidly. For example, the Cat-birds ate in May, June and July, eighty-seven per cent., sixty-four per cent., and eighteen per cent., respectively, of insect food, while the CARABIDÆ for those months averaged seven per cent., six per cent., and ten per cent., the corresponding fruit record standing nothing, thirty per cent. and seventy one per cent. The following genera were distinguished among the CARABIDÆ *Scarites*, *Dyschirius*, *Platynus*, *Evarthrus*, *Pterostichus*, *Amara*, *Brachylobus*, *Geopyrus*, *Agonoderus*, *Anisodactylus*, *Bradycellus*, *Harpalus*, and *Stenolophus*. The absence of all, or nearly all, the specially protected genera is noticeable (unless the obscure colour of many is reckoned a special protection.) A single Cicindela (*C. lecontei*) was found in the stomach of a Cat-bird. It is further interesting to notice the apparent specific difference in the food of allied species, occupying the same ground at the same time and drawing their food from the same sources of supply. The Robin and the Cat-bird differed materially in the number of ants and myriopods destroyed, the former eating very few of either (one per cent. and two per cent. respectively). The Brown thrush departs from all the other members of his family in his fondness (?) perhaps it is stern necessity which forces him to this miserable shift), for insects and fragments of grain picked from the droppings of stock. Twenty-eight per cent. of the food of those shot in April was derived from this source, and another eight per cent. consisted of carrion beetles (SILPHIDÆ). This bird was further distinguished from the Robin (as is the Cat-bird also), by the absence of the larva of *Bibo albipennis* Say which made over half the food of the Robin in March. It is important to recall, as throwing light on the question of fixity of food habits over large areas, that Professor Jenks, now of Brown University, found nine tenths of the food of a large number of Robins whose stomachs were examined by him in Massachusetts, in March and April, 1858, to consist of this same larva."

The above particulars and conclusions will serve to give some idea of the interest and promise of this subject, if it is studied with as near an approach to the strict scientific method as the circumstances will permit.

#### ILLEGAL FISHING.

I would draw attention of the Montreal Fish and Game Protection Club to the illegal netting and angling for Black Bass (*H. nigricans*), which takes place at Beauharnois, in the mouth of the River St. Louis; also, in the vicinity of the islands in Lake St. Louis, during the close season, between the 15th April and 15th May. At this period fish swarm in these localities and fall an easy prey to the poachers. If this infraction of the Game Laws could be stopped, Montreal sportsmen and others would have good Black Bass and Doré fishing, easy and inexpensive to reach. Minnows for bait can be caught in large numbers in the mouth of the River St. Louis. E. D. W.  
Montreal, 15th March, 1881.

#### PROPOSED CHANGE IN THE QUEBEC GAME LAWS.

SIR,—That the Fish and Game Protection Club of the Province of Québec is becoming a "terror to evil doers" is apparent from the fact that a close search at the commencement of the close season for Deers, Hares, &c., and for Partridges resulted in the discovery of but one piece of venison and one small lot of hares. I am glad to say that all the respectable Fish and Game dealers in the city are working in harmony with the Club, a state of affairs that did not at one time exist. The Club intends petitioning the Legislature at its next session for the following alterations in the Game Act, viz: Close season for Deer and Moose to commence on 1st January, instead of 1st February; for Black Duck, Wood Duck and Teal, to commence 1st April instead of 1st May; for Partridges to commence 1st January, instead of 1st March.

H. R.

NOTE.—At this instant we avoid comment on the above alterations. Quebec sportsmen will doubtless be careful that the close seasons are in accordance with the natural history of the animals mentioned. Our object is to harmonize the Game Laws of Quebec and Ontario which we have had in view from the first issue of the SPORTSMAN, &c.—ED.

SIR,—With regard to the paragraph in your last number headed "Fish and Game Club Beware," I think you must have overlooked the fact that trout had been in season in this Province two months before the article in *Forest and Stream* was published, hence the exportation of trout to Vermont referred to was not illegal. As regards the district whence the trout were said to have come, I may state that the supervision of the Fishery Department is so perfect that nothing is left for the Fish and Game Club to do. Of course it is utterly impossible entirely to stop poaching in a wilderness so vast.

H. R.

NOTE.—We have a decided objection to netting Brook Trout during any season; this alone led to our remarks.—ED.

#### GAME LAWS.

##### PROVINCE OF QUEBEC.

It is unlawful to hunt or kill:—

Elk, commonly called Moose, Virginian Deer, Caribou or Reindeer, and Arctic Hare from the 1st February to 1st September.

Ptarmigan, Ruffed Grouse, (Partridge) Spruce Grouse, Sharp-tail Grouse, Woodcock or Wilson's Snipe from 1st May to 1st September.

Wild Swan, all kinds of Geese, or wild ducks of any kind from 1st May to 1st September.

The same east of Three Rivers, from 15th May to 1st September.

It is unlawful to catch:—

Pickarel (Doré) or Pike Perch, Maskilongé, and Black Bass, from the 15th April to 15th May.

Salmon (with nets) from 1st August to 1st May. Do. (with the fly) from 1st September to 1st May.

Brook Trout (speckled) or River Trout, from 1st October to 31st December.

Salmon Trout and Lake Trout from the 15th October to 1st December.

Whitefish from the 10th November to 1st December.

##### PROVINCE OF ONTARIO.

It is unlawful to hunt or kill:—

Deer, Elk (Moose), Reindeer (Caribou), between 15th of December and 1st October.

Grouse, (pheasants), Prairie Fowl or Partridge between 1st January and 1st September.

Wild Turkeys and Quail between 1st of January and 1st October.

Woodcock between 1st January and 1st August.

Snipe between 1st of January and 15th August.

Water-fowl known as Mallard, Grey Duck, Black Duck, Wood or Summer Duck, between 1st January and 15th August. Other Wild Ducks, Swans or Geese, between 1st of May and 15th August.

Hares between 15th March and 1st of September.

The Ontario close season for fish is similar to Quebec.

#### FISHERIES DEPARTMENT.


Public attention is here directed to the following Fishery Regulation adopted by the Governor-General in Council, on the 23rd March:—

"Fishing with nets or seines is prohibited during a period of two years from the present date in that part of the River Ottawa and its tributaries, and the Lake of Two Mountains, fronting on the Counties of Jacques Cartier, Vaudreuil, Two Mountains, and that portion of the County of Argenteuil extending from Carillon downwards to the eastern boundary of said county."

All well disposed persons are requested to afford the Local Fishery Officers whatever information and assistance they can towards enforcing this Regulation.

Every person guilty of a breach of the same is liable to forfeiture of fishing material and fine not exceeding \$20, and imprisonment in default of payment.

Complainants will receive one half the fines imposed and be paid for their costs and attendance as witnesses.

 Mr. G. N. Hyde is Game-keeper to the Argenteuil Fish and Game Club, not W. Gaherty as stated in our last number.

We have received the March number of the *Canadian Poultry Review*. It is published by James Fullerton, Strathroy, Ont. This meritorious and useful Magazine is devoted to all kinds of Poultry and Pet Stock. Its advertising columns exhibit evidence of support from all the Poultry fanciers in the Dominion.

#### OUR FOREST TREES.

**BLACK OR DOUBLE SPRUCE; *A. nigra*.**—A medium sized tree of dark sombre foliage, and very regular conical form. The wood is light and elastic, and is much used for the smaller spars of ships. A mast made of it shows no signs of decay after more than 30 years use. It is also much used for shingles. The popular beverage, spruce beer, is made from the young shoots of this tree.

**WHITE SPRUCE; *A. alba*.**—A tree of lighter green foliage and less spreading growth than the preceding. The wood is used for similar purposes; and when ground into pulp is employed in the manufacture of paper. From its tough roots the Canadian Indians make the thread with which they sew their birch bark canoes.

**BALSAM FIR; *A. balsamea*.**—A beautiful tree of deep green foliage and regular form. Its beauty is increased by its large and numerous cones of a soft purple color. The valuable Canada Balsam is gathered by puncturing the rough bark. The wood is of little value, and the tree is short-lived.

**LARCH; *Larix Americana*.**—All of our other cone-bearing trees are evergreens, but the Larch drops its leaves at the approach of winter. It is a slender tree of medium height. Its wood is very compact, heavy, and durable, and is especially prized by ship builders, who know it by the name of Haematack.

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**RED OAK; *Q. rubra*.**—This tree attains its greatest perfection in New England, and is especially abundant in Massachusetts, where it sometimes even rivals the White Oak in size and majesty of form. In general utility it is far inferior to the white oak. Even for fuel it is of little value, and the bark is almost worthless.

**BEECH; *Fagus*.**—This tree is remarkable for the density of its shade and the smoothness of its bark. It grows rapidly and reaches a height of 80 to 100 feet. The compact, heavy wood is used for plane-stocks and saw-handles. The sap wood is firmer and more durable than the heart. The fruit is a rich, oily nut, eagerly devoured by swine, squirrels, and partridges.

(To be continued.)



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THE  
CANADIAN SPORTSMAN  
AND  
**Naturalist** :

A MONTHLY JOURNAL.



MONTREAL, MAY 14, 1881.

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AGENTS AND CORRESPONDENTS.

JAMES T. BELL, Prof. Mines and Agriculture,  
 Albert University, Belleville, Ontario.  
 MR. CHARLES BAILLIE, Fishing-Tackle Manu-  
 facturer, 113 Charlotte St., St. John, N.B.  
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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 5.

MONTREAL, MAY 14th, 1881.

VOL. I.

## THE GRAND ROMAINE.

This beautiful river enters the sea about nine miles east of Mingan. It is considered one of the best for angling. The salmon are generally of large size, said to be of extraordinary strength, and give excellent sport; indeed, one cannot easily doubt this statement when he visits the place and views the magnificent falls, just above the angling pools, and opposite the camping-ground. He may naturally ask does salmon leap this mighty torrent of water? No, dear Sir, although the salmon of this river are remarkable for their size and beautiful form, they cannot reach the spawning-grounds by attempting to leap such a perpendicular fall of water. Nature has provided another entrance for the fish, a short distance east of the falls. It is therefore evident that the habits of salmon are similar to the sea trout, which are known to remain for many days feeding in the estuary, gradually becoming accustomed to the river water before they finally depart for the purpose of propagation. In like manner, salmon leaving the salt water make for the pools at the base of the Romaine falls, where they remain a short time making vain efforts to go farther, but finding a barrier they again turn seaward discovering the east entrance where they enter and reach, (after many difficulties) their spawning-grounds. While we were at Mingan in 1868, the mistake of salmon missing their native river, was illustrated by the fact that the Romaine form of fish was caught in nets placed near the Mingan. It must be remembered that although there is no structural difference in *Salmo salar*, there is an evident change in the exterior form of the fish which is remarkable and moreover applicable to the river to which the salmon belongs, and the man who net-fished the Mingan at that time, could, with confidence say, "Mr. Couper,

this salmon which I have just taken from my net has made a mistake, it has passed its own river." Capt. LeMarquand, please explain. "You see, sir, that the shape of the fish is totally different from Mingan salmon; its form is deeper; it is more bulky, and the head is not shaped like any salmon entering the Mingan. This we have ascertained through long experience; we can pick out every fish that makes this mistake." In *Lovell's Gazetteer*, the Romaine is described as a large river of Quebec; falls into the north shore of the Gulf of St. Lawrence. It extends north and south many hundred miles, and has some fine falls. One hundred miles from its mouth, there is a natural bridge, and three hundred miles farther magnificent falls, said to be equal to those of Niagara." We have had the pleasure of entering the Romaine in a canoe, as far as the pool at the base of the fall on the north-west branch, about ten miles inland, where this portion of the river becomes narrow, descending from primitive rocky gulches, showing evidence of the difficulty salmon has to contend with in reaching the spring tributaries which make the river proper. If the water happens to be low, the fish must remain in the pools until rain occurs further north to add to the bulk of the stream. Should this not take place, many fish which have reached thus far must of necessity return to salt water before winter sets in. In our opinion the Fishery Department should take away this obstacle to salmon passage on the Romaine. It would cost little to make proper and permanent fish-leaps through these almost perpendicular falls, besides it would make the river more valuable, and increase the number of salmon. Several North-Shore St. Lawrence rivers are similarly situated. For instance, the Mingan; it also could be improved by making a more easy passage for salmon over its rocky fall of water.

## Microscopical.

The Microscope is a delightful source of instruction, especially when in the hands of an expert. The *minute* of this world are through it clearly presented to our view. When the instrument is properly worked by an intelligent head of a family, the information and pleasure derived from it is unbounded. Having clever microscopists in Canada, it is our wish to encourage their investigations, and we therefore solicit communications regarding new discoveries. Mr. Murphy's microscopical investigations on the structure of the mosquito's proboscis should induce others to follow correct manipulation. We cannot publish what has been microscopically examined in a hurry; an object must be repeatedly and thoroughly tested, and its structure properly defined by frequent examinations in order to claim our attention. Furthermore, in describing minute forms, it will be necessary to apply proper names to their several parts. It is not correct to call the proboscis of a Dipterous fly (the mosquito) a sting, as the latter organ does not occur in the two-winged flies. Bees and wasps (four-winged flies) are stinging insects.

### THE MOSQUITO'S PROBOSCIS.

It is an interesting question how a creature as small as the mosquito, and so very light that the slightest breeze will blow him away, can hold on to his prey with sufficient tenacity to force through a hard epidermis, and into solid flesh, his very delicate and perfect instruments. A careful examination of his organs, and repeated observation of the insect while feeding, by Mr. Edward Murphy of Montreal, (who has dissected and mounted a large number of these little creatures, and has paid particular attention to their habits) have brought to light the following particulars, which are copied from his extensive notes on the subject.

As in all the "blood-sucking" insects there is a wonderful modification of the mandibulate

mouth. A prolongation of the *labium* forms a proboscis, covered with minute scales; having a sort of muscular contraction a short distance from the point, which not only holds all the contained organs into a compact body for insertion, but also forms a sort of "cleaning" organ, through which they can be drawn. When the instruments are inserted into the flesh, this proboscis is pushed back, bending towards the top, at an angle more or less acute, and having something the appearance of a leg with a bent joint.

The mandibles have been modified into a pair of beautiful saws, whose sharp teeth, generally ten in number, small at the point of the instrument, and increasing in size towards the mouth, and *set backwards*, not only act as cutting tools, but from their barbed shape, give the creature the "purchase" necessary to hold him to his prey. A careful observation of the insect whilst feeding, shows him *pulling* the saw on one side as he *pushes* it on the other. The side he *pulls* is the side that cuts. Thus the action that increases the depth and size of the wound, also gives him the necessary "purchase" to enable him to push in the opposite saw.

Between these saws and the central tube the *maxillæ* are modified into a pair of irritators: possibly used also to prevent any solid matter of too large dimensions entering the tube.

The tube, a modification of the tongue, is horny in its structure, sharp pointed and solid at the end; so that it may be pressed firmly against the bottom of the wound, without risk of being stopped up: the blood flowing through a hole like the eye of a needle, which passes through the tube, at a distance from the point equal to about the diameter of the tube.

---

### MONTREAL BRANCH ENTOMOLOGICAL SOCIETY OF ONTARIO.

The Eighty-second meeting of this Society was held on the 12th April last, at the residence of H. H. Lyman, Esquire. Three gentlemen were proposed for membership, and some interesting notes of the early appearance of insects



this year were placed on record. Mr. Lyman laid before the meeting a "list of the Lepidoptera taken by Mr. Robert Bell in the Northwest Territory," which was noteworthy as showing the extensive distribution of some of our Canadian butterflies; and some time was very agreeably spent in examining his copy of "Abbott & Smith's Insects of Georgia," a standard work, and very finely illustrated.

## Correspondence.

To the Editor of the SPORTSMAN AND NATURALIST

DEAR SIR,—I was astonished this week to see it stated in one of our city papers that one thousand brace of black duck had been sold a few days ago on the Montreal market. If this item of news is correct, it indicates a most lamentable state of things, calling loudly upon all sportsmen, and all others interested in the proper and reasonable preservation of game—and what good citizen is not?—to use their most strenuous and immediate efforts for the effectual prevention—as far as legislation can do so—of the killing of black duck, mallard, grey duck, and wood-duck in the Spring. With the exception of teal, all the above-enumerated species are protected in Ontario for the period between the first of January and the fifteenth of August. The law in the sister Province should be the same. Now that the Quebec Legislature is in session, I hope something will be done to prevent the suicidal policy of slaughtering and exposing for sale such splendid birds as black duck in the breeding season, too, when the females are laying their eggs. Admitting that amongst the two thousand black duck reported to have been sold in Montreal, there were one thousand females, and that each of such females, if unmolested by the worst enemy of game, the market poacher, would be able to bring up to maturity, at the very least, five of her brood, and many rear double this number, instead of two thousand, we have actually six thousand black duck improvidently and wantonly destroyed in the breeding season. This kind of work should be tolerated no longer in a civilized country. Even were there no law to control him, no civilized white man ought to be guilty of killing game in the breeding season. This kind of miserable work should be left to the Indian

who will soon have the plains to himself for anything he ever did to protect the game of the country. Trusting that during the present session of the Quebec Legislature, the legitimate sportsmen of your Province will be able to accomplish something towards assimilating the Game Act of Quebec with that of Ontario, more particularly as respects deer, wildfowl, snipe, woodcock and ruffed grouse.

I am, yours truly,

WILLIAM P. LETT.

Ottawa, April 29th, 1881.

### THE ROBIN.—*Turdus migratorius*.

MR. EDITOR,—It gave me much pleasure to read the statements by my friend Mr. Saunders of London, in regard to our insectivorous birds. I am glad he has made these especial published observations, as they agree very closely with the same variety of scientific remarks made by Mr. Riley of Missouri. Nevertheless, much may be said in direct contradiction and with equal truth. As to Mr. Saunders' remark that *Turdus migratorius* is a very mischievous bird, I cannot agree, as I know to the contrary. Nevertheless, this is not the idea I wish to introduce. Mr. Editor, did you ever eat a robin? If not, you have a great pleasure ahead. I have eaten many, and am only sorry that I cannot procure them all the time. They are really a delicate morsel at breakfast, and well worth the trial. I do not care to shoot them in Spring, but after the first of August, when Woodcock come in, I let them pass after killing sufficient for a dish. Try some and then give your opinion. Thousands are sold in New York, and other American cities, for a few cents each. If I remember rightly, about 10 cents a pair, is what I paid for them in New York. Before cooking, I should recommend them to be plucked and drawn, as the feathers and the "innards" are as well removed. Then get them nicely fried in butter for ten minutes. Serve on toast; and any one of reasonable desires must be content. I think it strange that this bird, as well as many species of snipe and plover, are not included in the game law, as they are well worthy of protection. I moot this point, and being an enthusiastic sportsman, I sincerely wish it would be attended to. You mention a delegation to go to Quebec about the Game Act. Would it not be as well to consider the other birds that could be easily included, and that sportsmen seldom allow to pass without bagging.

J. H. GARNIER.

Lucknow, Ont.

WHOLESALE SLAUGHTER OF WILD DUCKS.

SIR,—In reply to "Hammerless Greener's" letter published in your February number, I beg to say there are several legitimate sportsmen living in the neighborhood of Lake St. Francis, and that Soulanges County has just sent a petition to the Commissioner of Crown Lands for Quebec, signed by J. P. Lantier, M.P., W. Duckett, M.P.P., and seventy three of the most influential people in the county, praying that the wholesale slaughter of wild ducks by American "pot-hunters" be put a stop to. Where the greatest number are killed is not in the Province of Quebec; it is a few miles above the line, at Currie's Creek, in the County of Glengarry: which county, I hope, will also send in a petition to the Commissioner of Crown Lands for Ontario.

Yours faithfully,  
St. Polycarpe, Q., } T. W. W. G.  
April 26, '81. }

SIR,—The Fish and Game Protection Club have an advertisement in your Journal giving the names of Office-bearers, &c., and intimating that notice of infractions of laws for the Protection of Fish and Game should be sent to the Secretary. Your correspondent E. D. W. has not taken this course; had he notified the Secretary of illegal netting which he alleges takes place at Beauharnois, giving date and names of the offenders and witnesses, the case would have been taken up at once. It is impossible for the Club to keep men at every spot where fish may be illegally taken: the most they can do is to prosecute such offenders as may be reported to them, with sufficient information as to witnesses, &c., to secure a conviction. They invite E. D. W. to send his complaints direct in the future to the SECRETARY.

SIR,—Having tried long-range shooting at my "Force gauge" with two 12-bore guns, I send you the result, thinking it might be of interest to your readers:—

12-BORE.—WEIGHT, 7 $\frac{3}{4}$ LBS.				
Charge, 3 $\frac{1}{2}$ drams powder, 1 $\frac{1}{2}$ oz. No. 4 shot, (162 pellets to the ounce.)				
Distance from Gauge.	Pellets on gauge 5 in. diameter.	Force per Pellet.	Final velocity ft. per sec.	Penetration. Number of sheets.
40 yds.	4	3.50	567	27
50 "	2	2.90	469	17
60 "	1	2.17	350	10
70 "	Not fired at this range.			

12-BORE.—WEIGHT, 8 LBS. 10 oz.

Charge 3 $\frac{1}{2}$  drams powder, 1 $\frac{1}{2}$  oz. No. 4 shot, (172 pellets to the ounce.)

40 "	8	4.03	652	35
50 "	4	3.46	560	26
60 "	3	2.86	463	17
70 "	2	2.00	324	9

Same gun with 3 $\frac{1}{2}$  drams of powder, 1 $\frac{1}{2}$  oz. of No 7 shot (320 pellets to the ounce.)

40 "	7	1.60	519	19
50 "	5	1.23	393	11
60 "	3	0.76	243	6

I merely send the trial with No. 7 shot to show how rapidly the small pellets lose their velocity.

I am about to make a trial of different kinds of powder, viz., English, Canadian and American; if you think it will be of sufficient interest I will send you a report of the result.

Yours truly,  
12-BORE GREENER.  
Lachine.

SIR,—In reply to your query as to how far inland Shad have been known to go? I will state for the benefit of your readers, that fine specimens of these fish have been taken as far up the Ottawa as the "Long Sault." Never, to my knowledge, beyond this point, as the wild stretch of rapids known by that name interpose a barrier to further ascent. Consequently the fish assemble in shoals, in an inlet, on the Ontario shore, and a rich season of sport is annually enjoyed by the "few" who know of this piscatorial eldorado.

J. D. F.  
Montreal, 5th April, 1881.

NOTE,—Since the receipt of the above we have ascertained that Shad visit Lake Ontario. Our correspondent's letter is interesting in regard to the farthest point reached by the fish in the Ottawa river. How they reach the "Long Sault," at the foot of Lake Temiscamingue, 233 miles above the city of Ottawa, is a matter of which we are anxious to have more information. Are there two "Long Saults" on the Ottawa? We make this enquiry because our correspondent speaks of "the Ontario Shore," leaving one to believe that a "Long Sault" occurs on the Quebec side of the river.—Ed.

## Herpetology.

### LIST OF REPTILIA OF ONTARIO.

To Reptiles that I have not seen, or those reported to me on good authority, I have affixed a mark of interrogation (?). All the others I have recognized, and they are in my cabinet. I do not consider this list by any means perfect, and other forms will doubtless be added by scientific research. I solicit exchange from Herpetologists in the Dominion, and neighboring States of America, as I have a fine lot of Ontario duplicates in the best condition for this purpose. I wish to obtain reptilia, of all classes, from the Province of Quebec, as the difference of climate is of great importance in regard to colouration. This is remarkable in the genus *Eutania*; whose geographical distribution, with other causes, seem to exert an extraordinary influence in regard to tintings and colouration, not alone in Canada, but wherever they occur. There is, perhaps, no branch of natural history less studied in a scientific manner than Herpetology. Here we have an enormous field for research, and scientific enquiry, and Ontario seems as rich in species and genera as any other country of similar extent.

#### I. — TESTUDINATA.

##### Family EMYDIDÆ.

- 1—*Chelopus insculptus*. Wood Tortoise. Common.
- 2—*Nanemys gutatus*. Speckled Tortoise. Common.
- 3—*Emys meleagris*. Blanding's Tortoise. Very rare. One specimen captured on Lake St. Clair, by Mr. Buck. Now in my cabinet.
- 4—*Chrysemys picta*. Painted Turtle. Common along the southern shore of Lake Ontario, and in every pond to the south. The most handsome turtle.
- 5—*P. var. marginata*. I have a variety that approaches that described by Jordan.
- 6—*Malacoclemys geographicus*. Map Turtle.

7—*M. pseudo-geographicus*. This is merely a variety, noticeable in the carapace, and seems to be a distinction without a difference.

8—*Aromochelys odoratus*. Musk Turtle. Stink pot; found in Lakes Erie, and St. Clair; rare.

9—*Chelydra serpentina*. Snapping Turtle. Found throughout Ontario. Used for making soup, and in some localities much sought after for this purpose.

10—*Aspidonectes spinifer*. Common Soft-shell Turtle. Lakes Erie and St. Clair, scarce; sometimes taken on hooks. Considered a delicacy. One was taken some years ago, in the Ottawa River.—Ed., rare.

11—*Amyda mutica* (?) Leathery Turtle. Although I never saw this species, yet there is no doubt that it exists as frequently as the preceding in Lakes Erie and St. Clair.

#### II. — LACERTILIA.

##### Family SCINCIDÆ.

- 12—*Eumeces fasciatus*. Blue tailed Skink.
- 13—*E. septentrionalis*. Northern Skink.
- 14—*E. anthracinus*. Coal Skink. I captured these in Tilberry township, Co. Kent. They may be considered the same species; the young being the darkest. Specimens I possess from North Carolina of *E. anthracinus*, and the others are not distinguishable from my specimens from Tilberry.

#### III. — OPHIDIA.

##### Family COLUBRIDÆ.

- 15—*Heterodon platyrhinus*, var. *niger*. Hog-nosed Snake. Blowing viper. Puff-adder. Captured near Toronto by Prof. Montgomery. A well marked specimen, though small; also reported near Port Hope and other places.
- 16—*Nerodia sipedon*. Water Snake. Water Adder. Black Water Snake; common.
- 17—*N. erythrogaster*. Red-billed Water-snake. This is a scarce species. Lake St. Clair.
- 18—*N. niger*. Black Water Adder, B. & G. I deem it to be the male of the *sipedon*, and it is now generally rejected as a species.
- 19—*Regina rigida*. Stiff Snake. Rare. Captured by Mr. Buck, at Mud creek, Lake St. Clair.



- 20—*R. leberis* (?) Leather Snake. Reported by several parties, and although I never saw a Canadian specimen, yet it has been identified by Mr. Smith, of Ann Arbor, as being in Michigan. Reports most probably correct.
- 21—*Storeria occipito-maculata*. Red-bellied Snake. Not very rare. Captured in Kent, Bruce and Huron counties, and reported from Owen Sound.
- 22—*S. DeKayi*. Little Brown Snake. Found all over the western portions of Ontario.
- 23—*Eutania saurita*. Ribbon Snake. I captured one twenty-two inches long in Bruce county; the only Canadian specimen so far examined by me.
- 24—*E. radix*. Hoy's Garter Snake. I captured several young specimens on St. Clair Flats.
- 25—*E. sirtalis*. Garter Snake. This species is considered the typical Garter Snake. I got specimens in Dover township, but never captured it farther north. Not very common.
- 26—*E. dorsalis*. Striped Garter Snake. The best known variety; everywhere abundant. The best marked specimens I have yet seen were procured near Toronto by Mr. W. Brodie.
- 27—*E. ordinata*. A variety with square spots on the sides, seemingly the young of *dorsalis*.
- 28—*E. ordenoides*.  
29—*E. parietalis*.  
30—*E. vagrans*.  
31—*E. elegans*. } Varieties with more or less red markings on the sides. Generally found in marshes or low lands.
- I have captured all sorts of gradings and shadings of coloured specimens around Lake St. Clair. I have also received a few well marked *parietalis* from Mr. John McMillan, Magnetewan, Muskoka.
- 32—*E. Pickeringii*. I have one or two specimens from Mitchell's Bay, Co. Kent, that approach closely to this species or variety, as far as blackness of colour is concerned.
- 33—*E. obscura*. A variety without dorsal stripes. Scarcely admissible even as a variety. The side stripes are generally very obscure.
- 34—*Bascanium constrictor* (?). Black Snake. Gananoque. I have not as yet seen or procured one, but doubtless it exists there among the rocks.
- 35—*Scotophis vulpinus*. Fox Snake. Kent Co. I saw one which measured 7 feet 11 inches, captured by Mr. C. Dusten, and I have one 6 feet 3 inches, taken by Mr. Buck, of Mud creek. Not common. This is the largest and most powerful of our Canadian snakes, at the same time, one of the most innocent, harmless and timid.
- 36—*Cyclophis vernalis*. Grass Snake, Green Snake, Spring or Summer Snake, &c. A well known and beautiful little creature.
- 37—*Diadophis punctatus*. Ring-necked Snake. Not rare in Huron and Bruce counties in damp woods.
- 38—*D. punctatus* var. *amabilis*. I have such a specimen which seems to be the young of the last (*D. punctatus*) and admit it in deference to Mr. Cope, though doubtful of it being worth consideration.
- 39—*Ophibolus dolatus* var. *triangulus*. Milk Snake, Chicken Snake, House Snake, Chain Snake, &c. A well-known species.

#### Family CROTALIDÆ.

- 40—*Crotalus horridus*. Banded Rattlesnake. Rapidly becoming extinct. I saw one killed on the mountain a few miles east of Hamilton in 1859, and one in 1873, captured not far from Niagara. The measured about three feet each.
- 41—*Crotalophorus tergemina*. Massasanga. Prairie Rattlesnake. I saw the decaying remains of one in Tilberry marsh. The rattles were gone, but having no means of carriage, had reluctantly to leave it. Not rare formerly along Lake Erie, although now exceedingly scarce.

#### IV. BATRACHIA.

##### ANURA (Family Tailless Batrachians)

##### RANIDÆ.

- 42—*Rana heleeina*. Leopard Frog. Everywhere.
- 43—*R. pulustris*. Pickerel or yellow-legged frog. Common.
- 44—*R. clamitans*. Green Frog. Common.
- 45—*R.* var. *caruleus*. I introduce this as a local variety. I captured several with a deep indigo head, but now changing in alcohol to a dark greenish brown.
- 46—*R. Catesbeyana*. Bull Frog. Common.

- 47—*R. var. rufus*. I introduce this as it is a larger variety; copper brown with no trace of green on the body or head; has a hoarser voice, and keeps more in deep marshes. I obtained specimens on St. Clair Flats and in Bruce county. This variety is well marked.
- 48—*R. sylvatica*. Wood Frog. I emphatically deny that this species has any connection with the European *R. temporaria* and it is not a variety but a totally distinct species. On comparing it with European specimens in my Cabinet there is nothing whatever in common, and their life history is entirely different.
- 49—*R. sylvatica* var. *Cantabrigensis*. Specimens I have from Massachusetts, Michigan, &c., differ little from Canadian. Rare.
- 50—*Pelobates Americanus*. The same as *R. circulosa*, &c. Hoosier Frog. It is not a true Rana, nor can I admit it as such at present.
- 51—*Hyla versicolor*. Common Tree-toad. Common. South. Disappearing gradually northward.
- 52—*H. Andersonii*. I have found half-grown, and nearly adult *H. versicolor*, almost pure green, with a chocolate brown band obscuring the eye. Generally found among green herbage, and difficult to observe.
- 53—*H. Pickeringii*. Pickering's Tree-toad. One of the earliest frogs to croak.
- 54—*Acris Gryllus* var. *crepitans*. Cricket Frog. The most noisy of frogs for its size. Common.
- 55—*A. gryllus* var. *gryllus*. A variety here of which I have two specimens I can only relegate to this. Taken near Lucknow, Co. Bruce, May 23, 1879.
- 56—*Bufo lentiginosus* var. *Americanus*. Toad. Common. Very useful to destroy caterpillars and insects.
- 57—*B. lentiginosus* var. *niger*. I have a deep black coloured variety. Young generally blacker.

## URODELA—(Tailed Batrachians).

## PLEURODELIDÆ.

- 58—*Diemyctylus viridescens*. Spotted Triton. Newt, &c. Common.
- 59—*D. mineatus*. Red Eft. Scarce.

- 60—*Desmognatus niger*. Black Salamander. Captured and presented to me by Mr. Brodie, Toronto.

- 61—*Plethodon erythronotus*. Red-backed Salamander. Common.

- 62—*P. var. cinereus*. Not very rare.

## Family AMBLYSTOMIDÆ.

- 63—*Amblystoma punctatum*. Large Salamander. Common.

## PROTEIDA.

- 64—*Necturus lateralis*; *menobranchus* (Baird), Mud Puppy. Taken by me in Lakes St. Clair, Huron, and Erie, and near Toronto; not very rare in the Don River.

- 65—*N. Huronensis* (Spec. novum). About a foot long; deep sooty-brown on back, lighter on belly. Gills bushy, brown, end of each orifice red, in three rows. Throat white. Vent reddish. Upper jaw hooked over lower; eyes black, not prominent. I have only obtained two specimens in streams during twenty-five years. Very rare. I venture this as a new species.

I trust to find time to send a history of the English frog, *Rana temporaria* in an early issue of the CANADIAN SPORTSMAN AND NATURALIST, and to demonstrate clearly peculiarities completely at variance with the form of *R. sylvatica*, which I think will prove their total specific difference. Any gentleman who may have a reptile of which he does not know the name, would confer a great favor by sending it in a box by mail, and after examination, I will return it with thanks. By this means, perhaps, new species, or varieties may be discovered in the Dominion.

JOHN H. GARNIER, M.D.

Lucknow, Bruce Co., O.

## PROTECTION OF GAME.

The following address is from the pen of Dr. E. S. Holmes, President of the Michigan Sportsman's Association:—

"It has been asserted that Sportsmen's Associations are purely selfish; that the object of

game protection is to prevent the general public from the enjoyment of the health and recreation of taking, and the nourishment of partaking of wild game. Without pretending that sportsmen are possessed of more disinterested benevolence than the rest of mankind—without asserting that they labor more assiduously for the public good than those who do not enjoy the healthful recreation of forest, field, and stream sports with rod and gun—it is an unquestioned fact that the accomplishment of the objects for which game protection and sportsmen's associations are organized will promote the welfare of all classes of the community. Our object is to treat the wild game with which our State was once liberally supplied, as a wise husbandman would treat his domestic animals, so as to continue and increase the supply, that as population increases there may be an occasional full meal for all. We desire to prevent the destruction of game during their breeding and rearing seasons, and to prohibit all murderous systems of slaughter. We wish to prevent the killing of all kinds of animals when their flesh is unclean, unhealthful, and therefore not fit to eat. As a *sanitary measure*, this object of our Association should commend itself to every well-wisher of our race. It is impossible to tell how many of the insidious diseases that invite death to our dwellings, and clothe the people with the weeds of mourning, are produced by eating of the flesh of animals killed when they are unclean. Yet that sickness is so caused is patent to every one who has given this subject careful attention. It is a question worthy of consideration whether further legislation to prevent the sale and use of unclean meats is not demanded.

Again, as a *food supply measure*, the protection of game, quadrupeds, birds, and fishes, is one of vast importance. I do not need to read you, gentlemen, statistics to prove the point. The annual product of field and stream, lake and forest, provided free of cost by a bountiful Creator, is so important an item of the food of the people that an immediate stoppage of that supply would almost, perhaps quite, cause a food panic. During the open season (would it were only then) there is hardly a table in the land that is not frequently furnished with healthful nutritious game and fish food. How to continue and increase that supply is the question before us—the problem to be solved.

Then there is another reason why we should so manage as to increase rather than diminish

our stock of game and fish scarcely less important than those mentioned. And that is the healthful recreation enjoyed in its pursuit and capture. Everybody needs recreation—rest; and everybody will have it in some shape, and it is right, for nature demands it. Now, as there is no recreation more beneficial, and less harmful than true sportsmanship, or the pursuit of field sports with rod and gun, are we not engaged in a humane work while seeking to maintain the supply of game animals so as to make such sport possible? Mere out-door exercise without some intelligent pursuit, something in itself innocent to stimulate the mind, is of but little value as a recreation. All these are supplied in the pursuit of sportsmanship. The sportsman has to study the natural history of his quarry, and is frequently called upon to make the best use of his reasoning powers, as well as skill, in order to compass the capture of the wily object of his pursuit. I believe if there were no other reason for the protection of wild game than the incentive it gives to healthful out-door exercise, this alone would be sufficient to demand the most carefully considered legislation on this subject, and the most strict enforcement of the laws. These are but few, and perhaps not the most important, of the reasons that might be mentioned to show that the object for which sportsmen's association are organized—if accomplished—would promote the welfare of the people of the whole State. The mission of this association is to educate the people as to the habits of game animals of "fur, fin and feather," the best time and manner of capturing them, the correct names—both popular and scientific—by which they are, and should be, known; to teach the value of game birds as insect destroyers, as well as the usefulness of insectivorous birds that are not classed as game, in preventing the destruction of the crops of the husbandman by noxious insects; also to teach the farmers that true sportsmen are their best friends, for the above-named reasons; and to show by our actions as well as by precept that there is a vast difference between sportsmen and poachers, who slaughter with gun, trap and net, at any and all times, not only game but any other useful animal that may come within their reach.

The true sportsman is engaged in a work of benevolence and good will. Let us all be careful to so conduct ourselves at all times as to command the respect of all our fellow citizens.



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A MONTHLY JOURNAL.



MONTREAL, JUNE 13, 1881.

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AGENTS AND CORRESPONDENTS.

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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 6.

MONTREAL, JUNE 15th, 1881.

VOL. I.

*We wish to publish the Game Laws of New Brunswick and Nova Scotia. Correspondents in the above Provinces would do us a favour by addressing authentic copies to 806 Craig Street, Montreal.*

## THE NATASHQUAN.

The river bearing the above name, meaning "where the seals laid," enters the sea on the north shore of the Lower St. Lawrence, some distance below the settlement of Esquimaux Point, and almost opposite the north-east end of the Island of Anticosti. The harbour of Natashquan is 244 marine miles from Gaspé Basin, and 372 from Quebec. The entrance to the river is about four and a half miles east from the settlement, and the whole of the coast at this place consists of sand. Iron sand also occurs in many places in abundance. It appears to us that the Natashquan has been during early ages, a great drift outlet from the far interior, as on its banks for twenty miles inland, the iron sand can be found at this day. The Chief of the Mountain Indians informed us that this river decreases in width and depth as one proceeds north; it branches off into a number of small rivulets, and that iron sand is seen far in the interior. Its estuary has doubtless undergone many early changes, and we are told they still continue. The channels of the river are greatly encumbered by sand, making it difficult for an ordinary keeled boat to reach the camp near the falls. This was the case in 1867, when two men were required to pole the tortuous stream. Half way between the estuary and the fall, the river is blocked up by three long islands, producing a strong current on the eastern channel. The fall is not more than nine feet, but on account of an almost squarely formed island above it, the force of water is great. It was the daring attempt to leap this

nine feet fall in a canoe, that cost Mr. Astley his life last summer. During the year 1867, only one salmon netting station was allowed by Government, and it placed in salt water one mile west of the Hudson Bay Post. We are now informed that there are nine or ten salmon nets placed in the estuary; two from the large sand island in the centre of the river outlet; one a short distance west of the Post, and three above it on the same side, and four from the opposite bank. Now we believe this is over doing a river, which was always considered a good surface fishing one. It is therefore no wonder that *Salmo salar* is becoming scarce in this wholesale dry-salting, smoking and tinning age. The Natashquan from its coast-arenaceous situation, and wide extent of estuary will always be a good salmon river, but many agencies are at work to destroy its prolific proficiency; for instance, during our visit we made a charge before Commander Fortin against the Indians then camping near the Post, to the effect that when they depart for the north in August or September, up the Natashquan, they reside close to the salmon spawning grounds, and spear the fish indiscriminately. The speared salmon are spread open, dried, smoked, or formed into heaps in the woods for future use in case of want, or not being successful in the capture of caribou; but should they be fortunate in obtaining plenty of the latter, these heaps of speared salmon are not required, but are allowed to rot or become food for Labradorian quadrupeds. The Chief on being asked if the charge was true, answered that it was perfectly true; that he had no control over his people at this time. He honestly stated they speared the salmon to revenge the Government for taking from them the liberty of fishing the rivers when visiting the mission. What is to prevent these Mountain Indians, who range the coast from the Saguenay to

Blanc Sablon, from acting in like manner? If this system of destruction has been carried on since 1867, we cannot wonder that salmon are scarce. If the salmon entering the northern rivers were allowed to carry out natural laws, the Labradorian spawning grounds would ultimately attain their native fruitfulness, and the surface and estuary net-fishing in these rivers become the most celebrated in the world. When we visited Natashquan there stood an old dilapidated shanty opposite the pools, on the beams of which were recorded the fishing scores of the gentlemen who were there on previous years. To day it has a camp building almost equal to those on the Godbout or Moisis.

#### THE MONTMORENCY.

A good Brook Trout river entering the St. Lawrence about six miles east of the city of Quebec, where its waters fall from a height of two hundred and fifty feet, known as the "Falls of Montmorency." The locality is historical and a source of attraction to tourists and others visiting the ancient capital. About two miles above the "Falls" the scenery is primitively grand; limestone rock margins its banks; here it is formed into "natural steps," about a foot in thickness, and for half a mile they recede one above the other to the height of twenty feet, as regularly as if made by the hand of man. On the right bank, there is a terrace of similar rock, a short distance above the present bed of the river, retaining evidence that long before the era of civilization, and while the limestone was in a soft state, a powerful stream passed over it, as indicated by the presence of deep pot-holes containing stones formed globular by the friction of the water. In the woods adjacent, are marks of early agriculture, resembling plough-ridges, probably the work of troops encamped in the locality during the war. Further up are the "Saubles," where the rocks are covered with sand rolled down beneath the torrent of ages. From this point upwards there

may be found some good Brook Trout, certainly when the river is low in June. It is considered a good day's fishing to wade from the "Saubles" to the "Three Falls," near the parish of Laval. If a Quebecker goes for two days, the first start is generally in the vicinity of the "Saubles;" he wades the stream as far as "Moore's," resting for the night, and returning next morning fishing down with the current to the "Saubles," leaving the latter place at seven o'clock, and arriving at Quebec about ten p.m. There are some deep cool pools in Laval, parish of Montmorency, and the fish are of larger size as one proceeds towards the "Beaver Meadows," further north. The river is an outlet of Snow Lake, a large body of water in the northern portion of the County of Montmorency. The Lake is said to contain large trout, commonly called *lunge* or Lake Trout, which are generally fished for through the ice in winter.

#### FISH PLANTING IN LAKE ONTARIO.

The employes of the Government Fishery Department at Newcastle, Ontario, are alive and at work. It is stated that about 16,000 young salmon trout and 3,000 Californian salmon fry were placed in the lake a short time ago. The fishes are planted, indeed, at the risk of their lives, because the little creatures are not strong enough to take care of themselves, and it is possible, where there are so many pike, bass and other ravenous fishes and black water snakes, that the result of the planting will never be seen again. Yet, we are told by the knowing ones of the Department that each of these fishes will weigh from four to seven pounds at the end of three or four years. It is our wish to encourage fish breeding, and to see that every food fish indigenous to the Dominion should have proper facilities to propagate its species. There are many existing natural obstacles placed against the propagation of salmon in this country, which the Government should make efforts to take away. We are satisfied regarding the



utility and good results derived from salmon breeding in the neighbourhood of the sea, but placing young fish in a large inland bay or lake, where the water is swarming with enemies, is a blind proceeding, producing not one scientific result; it is actually absurd. Almost all the fish will be wasted, and the few that survive will doubtless leave the dangerous waters, never to return again. Have we not already proved that shad pass annually from the Gulf to Lake Ontario, and by so doing shewn that the lake is not land-locked to fishes which require a change of water? Therefore, the fact that shad pass up the St. Lawrence to Burlington Bay, is strong proof that salmon hatched on the north shore of the lake are not likely to remain behind, while they can find their way to the sea. If this is not the case, what has become of all the salmon hatched year after year at Newcastle? What benefit has the country derived commercially from this source to make up the annual outlay of money to sustain this establishment?

#### WILD RICE.

The cultivation of Wild Rice has been to a great extent successful when undertaken in the inland waters of Western Canada, where it is partly a native, and now it may be found in ponds, lakes and rivers in Ontario. We have no available record of how far north this aquatic plant or cereal can grow, but it seems extraordinary that in the Province of Quebec no attempt has been made to experiment with its seed. On the British side of Lake Champlain there are many available localities for the introduction of wild rice seed, and although we think it will not grow north of latitude 46.50, the seed should be sown in places at first south of the St. Lawrence, where, if it succeeds, and becomes acclimatized to the combined waters, then the good localities on the north side could be tried. It induces the presence of all kinds of wild water fowl in the autumn. In the west it grows in water six or eight feet deep, and the

red-winged blackbird, ducks and waders resort there and afford fine shooting. Sportsmen's Clubs are using every effort to extend its growth in Canada. It is also said that where it grows prolifically, it has been cut before seed-time by manufacturers, who find its fibre, taken from the under surface of the water to a depth of six or seven feet to be very valuable. It affords, it is said, the strongest kind of fibre known for making bank note parchment paper.

#### GOOD ANGLING PROSPECTS.

We have been informed since the Fishery Department at Ottawa, and the Fish and Game Club of the Province of Quebec stopped net fishing, that Maskilongé, Black Bass, Pike-perch, and other good food fishes occur abundantly in local waters this year. Of course, the abundance of the fishes is mainly attributed to this mode of preservation, which may be the case, but we are aware that fish, like terrestrial animals, have an occasional prolific specific year. Be this the case or not, there is a prospect that anglers will have good sport this season.

#### THE QUEBEC MARMOT.

(*Artomys empetra*.)

This quadruped, a rodent, allied to the ground squirrel (*Tamias*), does not occur to our knowledge on the Island of Montreal. It is, however, common in many other portions of Canada. The following remarks are made from one which we have had from the Eastern Townships. It is larger than the Alpine Marmot. Its head is smaller in proportion, and round; its ears are very short; its cheeks are ash gray, and its nose black. The fur is of a curious roan colour from the hairs being gray beneath, black in the middle, and white at the tips; the belly and legs are of a high-toned fawn, approaching to orange; the toes are black and naked; the tail short and rather bushy. This species inhabits Hudson Bay and the northern parts of Canada. It is a solitary animal,

burrows in the earth, but it ascends bushes and trees in search of buds and bark on which it feeds. It also eats certain species of coarse grasses, which grow near water. Indians capture it by pouring water into its holes. The flesh is considered delicate when the animal is fat. It may be a delicacy to the aborigine, but to the white man, its strong flavor is against it. It is easily domesticated. The teeth are strong, and formed similar to those of the Beaver. The linings of the mouth indicate rudiments of cheek pouches. When annoyed it produces a hissing noise. Milk pleases these animals greatly, and they lap it with sounds of pleasure.

#### GAME IN THE NORTH-WEST TERRITORY.

Last April, Messrs. Bird and Ballendine started for four days on the plains in pursuit of feathered game. The former shot forty-three geese, three swan and fifty ducks. Mr. Ballendine bagged the same amount of geese and swan, but did not care to waste shot on ducks. One of the swans shot by Mr. Bird measured seven feet seven inches from the tip of the wings; four feet three inches from the beak to tail, and weighed twenty-five pounds. It was sent to be stuffed for Chief Factor Clarke of Carleton. What a grand country for the sportsman.

#### THE BRITISH SKY-LARK IN AMERICA.

Several years ago, a number of Sky-Larks were liberated on Long Island, U.S., with the object of acclimatizing the birds. Nothing further was seen of them until early in May last, one was heard by Mr. John Burroughs, a writer for *Scribner's Magazine*, who says that he sees no reason why the British Sky-lark should not thrive in America as well as in Europe. Acting on this suggestion, Mr. Charles R. Rowe, of Cornwall, England, an enthusiastic admirer of Mr. B.'s writings, has sent him a number of Sky-larks which arrived safely in New York, and have been forwarded to Mr.

Burroughs at Esopus-on-the-Hudson, where they will be set free. The Editor of this journal contemplates having a pair of British Jack-daws sent out this summer. When this bird is properly domesticated, it is doubtless mischievous and a thief, but with these exceptions we will be compensated by its odd tricks.

#### MONTREAL BRANCH, ENTOMOLOGICAL SOCIETY OF ONTARIO.

The Eighth Annual Meeting of this Society was held on the 10th of May. The following gentlemen were elected to office for the ensuing year :—

President—Mr. H. H. Lyman, M.A.  
Vice-President—Mr. William Couper.  
Secretary—Mr. George J. Bowles.  
Curator—Mr. George Bowles.

Council, Messrs. Robert Jack (Chateaugnay Basin), F. B. Caulfield, and R. Burland.

Several new members were elected, and the Annual Report gave a satisfactory statement of the condition of the Society.

A paper entitled "Notes on some species of *Hymenoptera* occurring at Montreal," was read by Mr. F. B. Caulfield, and another on "Instinct in Insects," by Mr. G. J. Bowles. We regret that want of space prevents us from publishing these papers, but we are glad to say that the study of this interesting branch of Natural History—Entomology—is being zealously carried on by this Society, particularly as regards the insects of the Island of Montreal.

#### RESOURCES OF THE NORTH-WEST.

Professor Macoun of Belleville, Ontario, who delivered a lecture last March before the "Ottawa Field Naturalist's Club," on the Geographical Distribution of Plants and Animals of the North-west," enunciated an important law accounting for the well-known heavy crop of grain secured so far north, *i. e.*, "the law of reproduction, which was wonderfully increased as plants approached their outer or northern limit. Hence, the cereals grown in the

districts alluded to,\* so near the extreme northern limit, were found to be more prolific than those grown anywhere else. Ordinarily on an ear of wheat grown in Ontario each fascicle contained but two grains. In Winnipeg they averaged two and a half, at Prince Albert four, and at Edmonton the wheat ears were found to average nearly five fascicles across the ear, extending the whole length of the head. When it was taken into account that the heads also increased in length it was not difficult to understand that the same number of stalks that would produce 15 bushels to the acre in Ontario would produce 25 bushels at Winnipeg, and from 30 to 40 bushels farther north. Speaking of the grasses found in the various parts of the country the Professor stated that there was no difference between the grasses grown under the eastern base of the Rocky Mountains and those found further east, commonly supposed to be inferior in quality. The only difference was that on the dry plains of the south hardly any grasses produce a large crop of seed, and from that cause the fodder afforded by the natural grasses was richer in nutriment equalling first class hay. He referred to the popular belief that cattle fatten on the grazing lands of Texas and warm districts in the south, which he characterized as a fallacy as shown by the custom amongst grazers of driving their herds northward to fatten. This was also in obedience to a well-known botanical and geological law, which provided that the farther north animals are found the greater their capacity for putting on fat. On this ground he was convinced of the great advantages possessed by the North West as a cattle raising country. The lecturer referred incidentally to the fuel supply of the North West, and ventured to say that there was untold wealth in the form of great peat bogs within forty miles of Winnipeg, the manufacture of which could be prosecuted with great convenience in that dry climate."

#### SCIENTIFIC REVIEW.

Osteology of *Speotyto cunicularia* var. *hypogaea*, and of *Eremophila alpestris*, by LIEUT. R. W. SHUFELDT, U. S. Army.

The two birds above named, one the Burrowing Owl, which "occurs on the prairies west of the Mississippi, notably in the villages of species of Marmot Squirrels, the deserted burrows of which it occupies for the purpose of nidification. Perhaps no species in the great Order to which it belongs, have less limited

power of flight, none so habitually congregate together in certain localities and choose the open treeless country as their resort, and make their nests underground." Mr. Shufeldt exhibits expertness in being a correct comparative anatomist, as every portion of the skeleton of the bird is illustrated with great care; all portions of which are fully explained in the text. There are three plates on the structure of the Burrowing Owl. Also, the osteology of the Shore Lark (*E. alpestris*,) a bird said to nest on the Island of Montreal, is illustrated. Mr. S. was fortunate in obtaining several hundred specimens in March, 1880. He says—"As they afterwards lay on the table of my study, one would almost have said before submitting them to careful scrutiny and examination, that not only was true *alpestris* represented, but *leucolama* and *chrysolama*, described by modern writers. I have never seen the black pectoral crescent of this bird in the low position in which Audubon represents it in his work." Mr. S. has evidently identified but one species, *i. e.*, *alpestris*, and his description of the skeleton, simply reminds the student that of the several genera that go to make up the family *Alaudidae*, or Larks, but one genus has fallen to the lot of the North American fauna, and that the genus contains but one species, *i. e.* *alpestris*.

## Correspondence.

### SPORTING AND NATURAL HISTORY CAPABILITIES OF BELLEVILLE, ONTARIO.

SIR,—As I understand from your prospectus that the indication of favourable sporting and collecting localities is to form a prominent, as it will certainly be a valuable, feature in your serial, I believe I will be doing a kindness to many of my fellow sportsmen and naturalists by making them aware of the advantages offered to them by this locality. The city of Belleville is situated on the north shore of the Bay of Quinte, at the mouth of the River Moira. Hotel and private accommodations are to be had of excellent quality, and at most reasonable fares. The Bay swarms with fish,—pike, pickerel, (doré), maskilonge, black and Oswego bass, perch, lake trout, rock bass, sturgeon, suckers, cat-fish, sun-fish, herring, whitefish, and eels are taken from its waters. The bass are especially fine; I have taken them myself up to 3½ lbs. weight, and I saw one some years ago



taken by Mr. C. Pauli, gunmaker, upwards of 7 lbs. First-rate sport can be had on the "bars," within a circle of a mile from the harbour mouth, and boats and boatmen, with all requisites can always be had. To the ornithologist Belleville affords a fine field for collecting; the neighboring woods afford shelter to various birds of prey, from the bald eagle down to the sparrow-hawk and shrike; the bay is the favorite resort of many ducks, loons, grebes, gulls, terns, and shore-birds, while the extensive marshes of Ameliasburgh, harbour herons, bitterns, mud-hens, snipe, rails, and other waders, and the golden plover frequents the commons in large flocks. Professor Macoun has collected during last winter and spring over 70 species of birds, a list of which I hope to be able to send shortly. About four miles below the city is Massassauga (Mississauga) Point, one of the most picturesque sites on our lovely bay. Here a large area is being fitted up as a summer resort, with a hotel and several detached cottages, and it is intended to place it in hourly connection with the city by a special steamboat. Here are also held the regattas of the Belleville Yacht Club. Having within its limits the terminus of the Grand Junction and Belleville and North Hastings Railways, Belleville offers every facility for visiting the mining and hunting districts of Hastings and Peterborough Counties, where the geologist can study the conformation of the Laurentian and Huronian series; the mineralogist can collect the iron, lead, copper, gold and other ores and minerals of this now celebrated region; and the sportsman will find deer and bear enough so exercise his skill upon with the rifle, and the woods alive with ruffed grouse (partridge), while the lakes and rivers swarm with fish of every description, from the lordly maskilonge and great lake and speckled trout, to the humble perch, and the despised cat-fish. Altogether, I do not know any place where the comforts and conveniences of city life can be so thoroughly combined with the enjoyment of country sport, as in our own little "City of the Bay."

JAMES T. BELL.

Belleville, May 25, 1881.

DEAR SIR,—I have read with very great pleasure the accounts given in your journal, by "12-bore Greener," of his trials at the target. I consider that Canadian sportsmen are much indebted to any one of their number, sufficiently spirited to take the trouble, and

incur the expense of making such reliable tests of the shooting qualities of "choke-bored" guns, with the various charges of powder and sizes of shot. With my Hammerless Greener, which is a No. 12, choked to No. 15, at 80 yards, I put 12 pellets of No. 6 American chilled "Tatham" shot, (almost as large as No. 5 English), into a foot square, and at 90 yards 7 pellets into the same sized target. This was with 3 drams of powder and one ounce of shot, and the penetration was sufficient, at both distances, to bury the shot out of sight in a dry pine board. I think, for general utility, handiness, convenience, *rapidity of ignition*, and unquestionable rapidity of firing, the hammerless gun is infinitely superior to the gun with hammers; and, within a very short time, amongst sportsmen, at least, must entirely supersede guns of the old style of construction. The hammerless gun of improved make is perfectly safe, handy to use in a boat or canoe, and when loaded is always ready. Having no hammers it can be put easily and conveniently into a water-proof cover, and in use the breech action can never become locked by the striker forcing its way through the cap and sticking there, as sometimes happens with hammer-guns. The irresistible force with which the tumblers are drawn back to cock, entirely obviates the chance of this difficulty occurring. In addition to the foregoing advantages, the facilities afforded for fighting and shooting amongst brush by the hammerless gun are unquestionable. Hammers may be ornamental, but in the face of hammerless guns they are entirely useless and superfluous. For the information of "12-Bore Greener," I may say, that in my one trial with half ounce charges of shot, although I had not the appliances for measuring the force and velocity of the shot, the penetration was eminently satisfactory.

Yours truly,

HAMMERLESS GREENER.

Ottawa, May 23, 1881.

P. S.—No sportsman of my acquaintance ever made a practice of shooting Robins. Small boys and thoughtless persons alone in this neighborhood are guilty of this indiscretion.

#### ENGLISH SPARROWS.

The question as to the desirability or non-desirability of introducing the English sparrow, *Passer Domesticus* into Canada has been not unfrequently discussed. My own opinion has always been adverse to such introduction,

and my principal reason, as a lover of birds, has been, and is, that the English sparrows drive away our own more charming native birds. That opinion has just been emphasized by the following incident. I was passing down one of our streets the other morning when I observed four birds in a state of great commotion on the ground, kicking up, in fact, an awful dust; the birds, being, as I soon ascertained, three English sparrows and one Chipping sparrow, *Spizella socialis*. The poor little native bird was being unmercifully attacked by the three more robust immigrants, and I verily believe would have been killed, but that my companion, a lady, begged to be allowed to rescue it by driving its aggressors away. For myself, I confess I should have been cruel enough to await the issue of the conflict for the purpose of exemplifying my theory, whereas now, instead of a charge of "wilful murder," I can only prefer that of "assault with intent."

VINCENT CLEMENTI, B.A.

Peterboro' May 9, 1881.

NOTE.—The House Sparrow, (*Passer Domesticus*) has been of good service since its introduction into Canada. Previous to its arrival in Montreal, it was almost impossible to keep down the millions of house-frequenting spiders, which during summer, festooned the interior of our houses, and exterior of outhouses with their webs. This nuisance is now lessened, as the bird relishes the spider, and whenever one of the latter shows itself, it is doomed. The acclimatized sparrow has besides adopted the flycatcher's system in obtaining its prey; it also imitates the woodpecker by holding itself with its claws and tail against a wall, picking from the interstices any insects lurking therein. Before the house sparrow was liberated in Montreal, an entomologist could, on a June morning's walk along the garden fences in the western portion of the city, pick up probably from twenty to twenty-five beautiful rare insects for his collection. This cannot be done now, as the sparrow destroys all insects whether he eats them or not. This is the only fault we have against him—that he makes no discrimination in his selection—he kills as many beneficial as injurious insects. We have seen

this pugnacious little bird attack the large Northern *Cicada*, holding it in its beak while the insect made the curious noise with its drums, which we frequently hear in the early part of September. The bird heard it, but the insect's noise was of no avail; the sparrow placed its foot upon it and picked it to pieces.—ED.

#### TENACITY OF LIFE IN BIRDS.

DEAR SIR,—Last fall, I received from the Manitoulin Islands, a living Eagle—the Gray Sea—*Haliaetus albicilla*), to stuff. Wishing to kill it as quickly as possible, I procured a strong acid poison from a druggist, and gave it a dose said to be sufficient to destroy its life in a few seconds. After waiting for half an hour, I went out expecting to find it dead, but there he sat as upright as usual. I gave the bird a second dose and patiently awaited the result. It had no more effect than an evident disagreement in the appearance of water from its mouth. Then I gave it a large piece of meat covered with arsenic and retired to rest, expecting to find him stiff and ready to stuff next morning, but to my surprise, when I went to his cage, it stood as upright as ever, and looking none the worse. I had laudanum in the house, and it occurred to me that I could put him in a deep sleep; therefore I gave the Eagle one half ounce, which had no apparent effect. I then procured strychnine, of which I gave him a large dose; in a short time it took effect, and the strong frame which withstood the other poisons had at last to succumb; it swayed with violent convulsions, and as I stood looking on its agony, I felt that I was the cause, and guilty of a crime. A few weeks ago I had occasion to kill a great Horned Owl, (*Bubo Virginianus*), and remembering my former experience with the Eagle, thought to try a more speedy method. I took a revolver carrying a No. 22 cartridge, which I fired close enough to penetrate the centre of its body, and the only apparent effect it had was merely to tip him off his perch, which he afterwards regained. Four hours afterwards I found him still sitting there, appearing all right. I fired the second ball forcing him from his perch, which he did not afterwards regain, yet he lived two days afterwards. On skinning this bird I found that both balls passed through his body. On the 27th May last, I had occasion to kill another Horned Owl, and remembering my former unsuccessful experience I thought to give him a blow which would pro-

duce instant death. I prepared a sharp-pointed instrument, and with one stroke the point entered the brain to the depth of three eighths of an inch; even after this the owl lived over one hour. I would be pleased if some of your readers would suggest a more speedy way to kill large birds?

Yours, &c.,

R. B. SCRIVEN.

Gravenhurst, Ont.

NOTE.—The editor of this journal has had long experience with large living wild birds. The best mode and the quickest to destroy bird life, is pressure across the sternum. In this way the skin is not destroyed, and it dies without great pain or struggle.

#### OUR FOREST TREES.

CHESTNUT; *Castanea vesca*.—A large and abundant tree, valuable for its nuts and its timber. The nuts, though much smaller than those of Europe, are sweeter and more nutritious. Close observers say that the chestnut moth lays one egg in each bur, and thus they account for the fact that in a quantity of chestnuts, about one-third are found to be wormy. The timber is more used than formerly. Its durability has long recommended it for fence posts and rails, and of late years it is largely used in cheap furniture, and the interior wood work of houses. If to be varnished or oiled, the pores should be carefully filled.

AMERICAN HORNBEAM; *Carpinus Americana*.—A small tree, 20 to 30 feet in height, admired for its soft green foliage, which in autumn changes to bright scarlet and orange. The wood is white and solid and is used for mallets and levers.

LEVER WOOD; *Ostrya Virginica*.—This closely resembles the last in size and foliage. The uses of the wood are similar, but it is even harder and tougher, and it is often called "iron wood."

BUTTERNUT; *Juglans cinerea*.—A broad-topped tree, seldom more than 40 to 50 feet in height. The nut when half-grown makes excellent pickles, and when ripe, if carefully dried, contains a sweet kernel. The wood is light and durable, of a pale reddish color, and is used for making drawer fronts, coffins, gunstocks, and panels of carriages.

BLACK WALNUT; *Juglans nigra*.—This tree is less abundant in New England than the but-

ternut which it much resembles, in size, form, and foliage. The leaves are smother, and the fruit spherical, while the butternut is long and oval. In the States bordering the Ohio River, the Black Walnut reaches its greatest size and yields its valuable timber in its highest perfection. This when first cut is of a purplish color, but soon changes to a rich dark brown, becoming in some cases nearly black with age. It is beautifully shaded and admits a fine polish; and no other American wood is so largely in demand for furniture and ornamental wood work of every description. The rapid consumption of walnut lumber is rendering it every year scarcer and more valuable in the market. It has also been largely exported to Germany and other foreign countries.

ENGLISH WALNUT; *Juglans regia*.—This tree has been successfully introduced into New England, but is less hardy than our native species. Its well known nut is in constant demand.

BLACK BIRCH; *Betula lenta*.—This is the most beautiful and valuable of the birches. In early spring its long bright coloured tassels give it a pleasing appearance, and it is among the first to put forth its leaves. In the forest it often reaches a height of 70 feet. When standing alone its long hanging spray earns for it the name of the weeping birch. The inner bark of young shoots has an agreeable spicy taste and odor. The wood is easily worked, yet firm; is of a delicate rose colour and presents a handsome grain. It is in demand for cabinet furniture, and is sometimes called "American Mahogany."

YELLOW BIRCH; *B. lutea*.—This is a rather larger tree than the preceding, and when seen in perfection is almost as beautiful. The scaly bark in long rolls adhering, by the middle or one end, and adorned with mosses and lichens, gives to the trunk a unique appearance. Its wood, though of less value than that of the black birch, is often used for making chairs and bedsteads. Its resinous bark is the tinder of northern voyageurs, and a flame will shoot to the top of a lofty tree in a few seconds, lighting a wide circuit.

RED BIRCH; *B. nigra*.—This graceful tree is usually found bending over a stream, and in some sections of New England is known as the "river birch." Its usual height is 50 feet. The wood is compact and white, and is now but little used. The earlier settlers made spoons, bowls and trays of it, hence it was called by them "spoon wood."

(To be continued.)



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AND  
**Naturalist:**  
A MONTHLY JOURNAL.



MONTREAL, JULY 15, 1881.

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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 7.

MONTREAL, JULY 15th, 1881.

VOL. I.

## TO ANGLERS.

We will publish the salmon scores of gentlemen fishing Canadian rivers this season, provided they are thoroughly vouched by one of the parties. We would be pleased to have scores already concluded sent to us in time for our August issue.

## SALMON FLY CASTING.

Gentlemen fond of surface fishing, and who have had experience in the art of casting the fly, have, generally speaking, a fair knowledge of the sporting value of Canadian rivers. A rough estimate of the product of a river can be given by any one who for a few seasons has handled the rod on its pools. Those who have studied the salmon run of a river, can give a rough calculation of the number of fish entering it. Independent of the annual score of a good surface fished river, the average amount of salmon passing the pools to the spawning grounds can be ascertained. Ask any one of the proficient fishermen of the Department at Ottawa, the cause of the late scarcity of salmon in Canadian waters, and he will give you as much information on the subject as astronomers do regarding the late comets. There are several maritime rivers which should be a source of revenue to the Dominion, and they are evidently neglected by the Fishery Department. Not that alone, but it seems as if ignorance prevailed in regard to what constitutes a salmon river. We have an instance of this in the Trinity River near Pointe des Monts, which is delightfully situated, and on which a guardian has been placed for years past. The Trinity could not be leased for surface fishing, although a Government official made annual repeated attempts to fish it with the rod. It was abandoned. It is known to us that the Trinity River could be leased for years past, indepen-

dent of an expert fisherman's report that the river was worthless for surface fishing. The truth is that he could not hook a fish because he did not understand the proper mode to fish the Trinity, and the river was therefore thrown off the list of salmon rivers for years past. Residents on the coast know that it was good, or at least that Salmon entered it, therefore one of them made a proposition to the Fishery Department, offering to make a trial of the river if the Government would pay for his time in company with two Indians. The offer was accepted, and he proved that the Trinity was a fair salmon river, he having hooked fish with the fly on the first trial, while the expert sent from Ottawa could not get a rise. The way in which this is accounted for is simply that the casting of the fly cannot be the same on all rivers. We have been informed that this is a well-known fact to parties who have fished various rivers. For instance, the casting of a salmon fly on the Mingan is different from the mode of casting it on the Trinity, and since the parties who now lease the latter river, have discovered the style they sometimes procure as good sport as on other rivers on the same coast. Now, after deriving this knowledge, it occurs to us that there may be several rivers on both sides of the Lower St. Lawrence within the ken of the Fishery Department in which salmon enter that are rejected, because they were never properly fished. We have penned the above for the simple reason that we are aware that the maritime rivers are not properly looked after by the Fishery Department, and besides we consider that too much money is being expended on lake fish breeding, to the detriment of the salmon rivers, which should receive more attention. Take the Godbout for example; look at the improvements made on it by the present owner, who has profited by the outlay, by pleasure and comfort.

## BIRD NESTING IN LABRADOR.

The Canadian coast and islands which margin the south-eastern portion of the Peninsula of Labrador, embracing the north shore of the Lower St. Lawrence, from Seven Islands to Blanc Sablon, near the North-West River, are interesting localities for the naturalist to visit. The aborigines, and their modes of life; the magnificent lakes and picturesque rivers; the fisheries of the white man, and the singular methods by which he obtains a subsistence on the rock-bound coast, are subjects claiming our attention at this age of human knowledge. Labrador was visited by Audubon before he issued his beautiful work on the Birds of America. He was aware that without a thorough ornithological knowledge of these northern bird breeding-grounds, his book would contain but few facts in addition to those given by Wilson and prior writers on our birds and quadrupeds. The naturalist who now retraces Audubon's footsteps along the Labradorian coast may fully realize the accuracy and truthfulness of this clever writer. In 1867, such was the object of the Editor of this journal, who went there to collect a series of bird eggs, and determine the species breeding on the coast. On the rocks surrounding the beautiful Bay of Seven Islands, the nests of several marine birds may be found. The greater portion being the Herring Gull, (*Larus argentatus*) and the White-winged Guillemot (*Uria grylle*). Proceeding towards Mingan, Leach's Petrel, (*Thalassidroma Leachii*) may be seen skimming over the stormy sea, but where the birds nest is only conjecture. There is a sand cliff between the Shelldrake River and the latter place, which may be occupied by these birds. The nesting habits of the Petrels being similar to the Sand Martin. Approaching the St. John River, a rock stands some distance seaward; it is called Isle Parquette; it is covered with earth and turf to allow numbers of the Arctic Puffin (*Mormon gracialis*) to burrow and form their nests. This rock is an extensive Puffin breeding-

ground. The Mingan group of Islands in the vicinity are heavily wooded, and nests of the common Eider Duck (*Somateria mollissima*), may be found occasionally. The nests of this species have been so frequently robbed by the people from the coast, that these islands are not now selected by the Eider Ducks for purposes of nidification. It is only on the islands below Point Esquimaux, which are not so easily accessible to man that the nests of these birds are found. The oölogist who can visit the group of islands between the latter place and Watsheesho, about the middle of May, will find plenty of material, but few species. There are abundance of Eider Duck's nests. Indeed, one small island visited by us, was almost covered with the nests of this species, and here we first found the nests of its congener the King Eider, (*S. spectabilis*.) It is in this region that one can realize the wildness of northern scenery. The diversity of the innumerable rocky islands which are surrounded by the sea; some bare and weather-beaten; others with trees of stunted growth, while a few tower to a great height, and are densely covered with wood. Such are the island homes of the sea birds. On one of these rocks called Table Rock, representing a platform about two acres in extent, we found the nest of the Black-backed Gull, (*Larus marinus*), and the Herring Gull (*L. argentatus*). It is a curious fact, that each of the rocky islands have been for centuries, the nesting-ground of marine birds, each species selecting and holding to this day its favorite island, where they produce a progeny forming a community of thousands each succeeding season. For instance, an island on which the Arctic Tern (*Sterna macroura*) breeds, cannot be invaded by any other species; the little creatures will fight even the larger gulls, and hold the locality to themselves. This is not the case with the Great Black-backed Gull, and the Herring Gull, the nests of which are frequently found on the same island, almost within three feet of each other. This is partially accounted for, and further to show the instinctive nature



of the same species which formerly bred in large numbers on the south coast of the Gulf, where their nests were annually robbed, the gulls as a last resource took the trees to build their nests, in order to be out of the easy reach of man. Several miles further down the coast between Watsheesho and Washshecootai, the rocky islands contain many fissures, and these are occupied by the Razor-billed Auk, (*Alca torda*), a bird which makes no nest. It deposits a single egg which is laid in a crevice. When searching for the eggs of the Auk, on several occasions the parent bird was found dead alongside of its egg. In every instance a slight wound was detected on the side of the head, behind the ear. We were afterwards informed that these birds were frequently destroyed by a species of weasel which inhabit the island. As we proceed further, the harbor of Kegaska is reached, below which stands the rocky islands of Musquarro, about five miles from Washshecootai Bay. Here the collector will find the home of the common Guillemot, (*Uria ringvia*). From this point northward this bird deposits its egg on any bare cavity it can find. These rocks are visited by men from vessels sent to collect them when fresh, and a large trade is annually made in the eggs of marine birds, which are thus collected and carried to the American markets for sale. The Indians, generally arrive on the coast at the time when ducks, gulls and guillemots are nesting. On their way to the Mission Church at Mingan, all the bird-frequenting islands are visited by them, and every fresh egg found is taken away and eaten. They also collect the down from the nests of the Eider Duck, which they generally sell at the rate of sixty cents per lb. We have slept on eider-down beds on the Labrador coast, each of which was valued at from sixty to seventy dollars. The residents send boats to these islands where the eggs of ducks, gulls, guillemots are collected and tested by placing them in water. The fresh eggs are placed in barrels containing a solution of water and lime, and in the absence of the latter, ashes will answer,

and they thus keep good for winter use. The great bulk of the marine birds found breeding on the northern coast of the Gulf of St. Lawrence, are similar to those found in the North of Scotland. The true American marine birds, such as the Labrador duck, (*Camptolæmus Labradorius*), Velvet duck, (*Melanetta velvetina*), Surf Scoter, (*Palionetta perspillata*), Brant Goose, (*Bernicla brenta*), Sea Dove, (*Mergulus alle*) and the genus *Stercorarius* have not been discovered breeding on the southern coast at Labrador. Audubon says that he found nests of the Surf Scoter on the margin of lakes near the south coast, but the Indians inform us that these ducks now nest only in Northern Labrador. The Northern Phalarope (*Phalaropus hyperboreus*), in summer plumage was shot near Mingan, but the nest has not been discovered. The Red-breasted Merganser (*Mergus serrator*) occurs abundantly, nesting on the margin of inland lakes. The woodland birds which were found breeding near the coast were very few. Sir Greville Smyth, who was fishing the Mingan, found a nest of the Red-tailed Hawk, (*Buteo borealis*). It contained two young ones, which could feed themselves at the end of July. The Pigeon-Hawk, (*Hypotriochius columbarius*) nests on this coast, and also on the island of Anticosti. We found the nest of the Black-poll Warbler, (*Dendroica striata*), on the third of June. It was in a low fir tree, and contained four eggs. A nest of the Black and Yellow Warbler was discovered on the 17th June. The common Yellow Warbler (*D. aestiva*) was abundant, also the Redstart, (*Setophaga ruticilla*). The White-throated Sparrow (*Zonotrichia albicollis*), and the White-crowned Sparrow (*Z. leucophrys*). Two species of Cross-bill; the Pine Finch, and the Purple Finch were noticed. The sweet song of the Fox-coloured sparrow (*Passerella iliaca*), is pleasing to the ear as we wander through the open parts of these northern forests, and it was with no little joy that we discovered the nest on the 15th of June, and authenticated its eggs for the first time. Audubon has made a

mistake in his description of the eggs of this species. The egg is larger than that of any other sparrow found within this latitude, and they are completely covered with blotches of a ferruginous tint. Contrary to the habit of sparrows, this nest was built in a low fir tree, about three feet from the ground. The Blackburnian Warbler was common in June in the woods of Natashquan, but no nest was found; it is possible that they pass on to the northern margin of the forest which adjoin the plains to breed. Five eggs of the Ptarmigan (*Lagopus albus*) was noticed strung against the wall of a house in Kegaska. The nest was found in the woods behind the settlement. On the 8th of June, When at Watsheesho we noticed the Canada Jay (*Perisoreus Canadensis*) in company with its young, which were nearly fledged. Being anxious to ascertain what these birds fed on, as their nests must have been formed about the middle of April: four of these were shot, and their stomachs contained abundance of a soft red berry that grows in swampy places on the plains. It is a species of cranberry, which ripens under the snow during winter. They are gathered by the people on the coast who convert them with sugar into a delicious preserve. We will close our present remarks by noticing that the Bald Eagle and the Raven occupy the cliffs near the River Corneille, where they bring forth their young. We will give a list of the Western forms of birds occurring on the Labrador coast, in our next number.

#### TO SPORTSMEN AND NATURALISTS.

Our periodical is the only one in the Dominion of Canada which professes to devote its columns to pure sport and Natural History. It is within the reach of all who wish to obtain information on these matters. We are anxious to increase our list of subscribers, and therefore ask all lovers of true sport to support it. We solicit correspondence from the Sportsmen and Naturalists throughout the Dominion; also ask them to advance our efforts to sustain

the journal. So far, we cannot complain of our success,—we have some of the best men in the country on list—but doubtless there are many Canadian gentlemen, fond of the rod and gun, who have not seen our magazine. We would therefore consider it an act of kindness if those who have subscribed, would induce their friends to send us their names. The price is one dollar per annum in advance. The back numbers from January can be supplied.

#### THE RACCOON.—(*Procyon lotor*.)

This quadruped appears to have a wide range, occurring from Carolina to the cold latitudes of the fur country. A male raccoon was shot on the 1st of July, a short distance west of the water wheelhouse of this city, near where a female of the same species was shot last year. The animal is not common on this island. It belongs to the plantigrade section of the *Carnivora*, but though the soles of the feet are naked, it is only while at rest that they are fairly applied to the ground. While in motion the heel is raised, yet the gait of the raccoon is heavy and awkward; its limbs are short and stout, its back is arched, and the body is round, thick, and massive, with a marked fulness about the flanks, adding to its breadth and making the limbs seem shorter than they are in reality. Its fur is of two kinds, a soft full undercoat, and an upper vest of long and rather coarse hair. The general colour is dusky grey, the tint arising from each long hair being annulated with white and tipped with black. The face, cheeks and throat are white, with an oblique black dash across the face, which also spreads round the eyes; the tail has four or five dusky-black rings; the length is about two feet, of which the tail is eight or nine inches. Left to itself the raccoon sleeps in its retreat during the day, rolled up in the form of a ball, with the head placed between the thighs. As evening sets in, he begins to prowl for food; roots, succulent vegetables, insects, worms, birds and their eggs constitute its diet. In captivity, it is easily

tamed and even appears susceptible of some degree of attachment. It can climb with the greatest skill in the manner of a bear—ascending or descending a pole with the utmost freedom. With much caprice there is no little cunning in the character of the raccoon, mixed with malice and a fondness for destruction.

FOR FIELD AND CAMPING GROUND.—We call the attention of our readers to *Lyman's Concentrated Extract of Coffee*. We have tasted this delicious coffee and heartily recommend it. Read the advertisement.

## Correspondence.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST :

DEAR SIR,—In your issue of June 15th there is an article on the cultivation of wild rice, in which it is implied that the plant will grow in lat. 46.50 or south of that. We have in this Province, between 45 and 46, on the St. John River, hundreds of acres of swampy ponds, in which the wild duck oat will grow freely, and in which sportsmen have frequently talked of planting the wild rice, but have dropped the idea for want of information. The article in your interesting little journal has revived the interest in the subject, and we would like to procure information on the following points :—

1st. Will it grow in dead water ponds as well as in ponds in which there is more or less current ?

2nd. How is it to be planted and at what season, and what average summer depth of water is best adapted to its growth ?

3rd. How and to whom should application be made for seed, and what is the price per bushel ?

Although we are north of 54 here, our climate on the lower St. John is not nearly so severe as in the Province of Quebec—as a rule—the influence of the fog, &c., from the Bay of Fundy having an effect to produce a warmer temperature. Any information you can furnish either in the columns of the SPORTSMAN or by letter to the undersigned, will be thankfully received by the Sportsmen of this Province.

I remain, Sir, yours very truly,

CHAS. W. BECKWITH.

NOTE.—The swampy ponds referred to by our correspondent, are just the localities where wild rice will grow, and it makes little difference whether it is placed in dead water, or where there is an easy current. The fact that wild oat occurs in ponds in the St. John River, is proof sufficient that the rice plant will grow there ; and moreover the oat will ultimately succumb, as the rice is more prolific, and the strongest aquatic cereal. We would suggest September as a good season to cast the seed into the water ; but prior to that it should be mixed with marsh mud for two days. In Ontario, it grows from a depth of eight feet. Wild rice seed is sometimes advertised in *Forest and Stream*, but we are not prepared to say what it costs per bushel. It is abundant in Rice Lake and Lake Skugog, Ont. Perhaps a subscriber residing near one of these lakes will answer Mr. Beckwith's third question.—Ed.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST :—

DEAR SIR,—A strong feeling is aroused here in the maritime provinces, against the system pursued by the Dominion Government, in leasing out Salmon rivers to single individuals and clubs, thus closing them to the great mass of sportsmen. This partakes too much of the old feudal times, when a few favored ones were allowed privileges that were forbidden fruits to the general public. In these provinces both parties Liberal and Conservative, are working together to bring an overwhelming pressure to bear on our representatives in Ottawa to do away with this despotic law. Make those rivers open waters, then charge say \$1.00 each rod used a day, and the Government would receive a revenue fifty times in amount to that it now derives from this source. Several thousand sportsmen would visit us each year from other countries, and when we consider that these sportsmen while here would spend from \$50 to \$200 each, we can readily see the benefits that this country would receive, and at the same time resident sportsmen who are found among our best citizens, would be able to enjoy the pleasure of Salmon fishing, which is now denied them. Until the New York Club bought the Restigouche River, near Matepédia ; Camp-



belltown was, during the summer months, crowded with strangers who came to angle in those waters, now the village is nearly deserted by that class of tourists.

At this age everything that tends to restrict the liberties of the general public for the benefit of a few, will be put down with a strong hand. All Salmon rivers that are of easy access to the public, such as the Restigouche, Matépédia, Cascapédia, &c., instead of giving the Government, as they do now, a mere pittance, should yield a revenue of several hundred dollars a week during the open season. Unless this evil is soon remedied there will be serious trouble, for the feeling here against it is strong and deep, and will sooner or later show itself on the surface with a power that will sweep all opposition before it.

STANSTEAD.

Restigouche, N.B., July 9, 1881.

#### DEER'S HORNS—A ROYAL HEAD.

Every hunter has heard disputes regarding what may be termed a full-grown, or "Royal" head. The fact is, a deer's age is known like sheep, viz: by the teeth, so that a practical butcher is a better judge on this point, whereas I am only an expert. The horns of our common deer (*Cariacus Virginianus*) take three seasons to come to maturity, so that in its fourth autumn or fall, they are as large as that animal is likely to produce them. In the first fall there are no horns, although I have once or twice seen little nubs one inch or so in length, and it is foolish to look to the size of the horns as a criterion of his age. It is similar to guessing the age of a game cock by the length of its tail feathers. In the first growth, or second fall, the horns are very variously produced. Some bucks have merely a long, single prong, and hunters then call them "spike," or "prong" bucks, and they are often represented as a distinct species. This is not so, as no one has seen the doe of the spike buck. Sometimes there are two branches only without a pointlet, or there may be three, but I never saw more than four. The first growth horns are always small, and look diminutive on the crown in proportion to the size of the buck. In the second growth, or third year, they are nearly as long and large-looking as they will attain, but thinner and more slender; and in the third growth, or fourth year, they become as large as they are generally; solid and massive. Occasionally there may be five, or even

six spikes, and I have seen various spikes with one, two, or even three spikelets of them, giving a grand and imposing aspect to the antlered head. But this is merely chance, and may depend on various causes. Particular localities, seem to have a great influence. For instance, in the County of Bruce, deer are found with antlers having long, straight prongs, and generally five, with very few spikelets. There is first the frontlet, then three full spikes gradually decreasing in length, and the terminal spike of the main branch, making five pointed extremities. I describe this from a full grown head, at this moment on my table, and I may add that the lesser heads are also here. In the Counties of Essex and Kent, and along Lake Erie, horns are more spiked and have quite a different aspect from the more northern forms. Spring opens there two or three weeks earlier than in Bruce. The feed is very different. The soil is low clay, and the water stagnant, and surface water. In the north, the county is a rolling sandy soil, with magnificent rills, that come from pure limestone springs, and formerly there was not one of these but had numerous beaver dams all over them. Into these open spaces deer came, especially in the evening, to feed and get rid of mosquitoes, black flies, horse flies, *et hoc genus omne*; and I have been lucky to drop many a fine buck when in the beaver dams.

Now there is another point sportsmen seem entirely to overlook, viz: the singular effect of peculiar seasons on the size and proportions of the horns. This, Mr. Editor, is no imaginary matter, but a fact. I have observed for years that when there is a warm early spring, with plenty of good succulent herbage, that next fall larger deer are procured, with finer heads; altogether they are fatter and heavier. The reason is thus explained: In spring, when there is not much food, the deer are invariably emaciated, and they have to wander continually for it, consequently there is a corresponding consumption of strength, and a systematic weakening, requiring time to recuperate. This naturally retards the growth of the horns, and after they are fairly in the velvet form, a frosty night takes great effect on them. It seems to stunt their growth, and to a certain extent, inflame them. An old hunter in referring to a head I once had, said that when the horns were a particular size, probably a keen frost took effect on them. I knew this by the rough thick nubs on a particular part. I may mention, that these horns were small, but thick and massive with little elegance of shape.

It may be taken then, that a "Royal head," is a very vague idea, and simply means a magnificent head of horns. There is a foolish notion afloat, that a deer produces one spike for every year of its age, but what I have already stated is pretty nearly correct. You may also often see one horn with a spike less than the other. But there is no accounting for irregularities of this sort. All we can do is to accept facts. Again, the size of a deer has very little to do with the size of the horns. The largest deer I ever shot was a two year old, a spike buck, that weighed 212 lbs., and the largest and finest antlers were on a buck of 157 lbs., both clean meat, *i. e.*, skin, &c., removed. I cannot account for it but it is true, that spike bucks are generally very much larger than other deer. For my own part I think it a pity to shoot deer in the rutting season, but the custom seems to obtain all over America. I would rather have a venison steak in the end of July, or beginning of August, than at any other season. The flesh is then very juicy and tender, and the full richness of the game is there. The animal has fully recovered from its winter's starvation, is plump and solid, with the new flesh well made, but it has not yet begun to lay on its autumnal layers of fat.

In Europe deer stalking begins on the 5th of July, and formerly it commenced in Ontario on the first of August. What practical use is there in putting it back to the first of September. The idea of destroying or "slaughtering?" fawns in August is silly. Fawns are then quite able to take care of themselves; besides they are difficult to see and shoot on account of their colour and the thick foliage. Would it not be really more for the benefit of sportsmen to drop hunting on the first November, to allow the deer to rut in peace, and to commence stalking on the first of August. All other game are protected in the breeding season: why not deer? Another mode of hunting, I never practiced, was using hounds. This I look on as miserable pot-hunting, and the deer, when so driven by these brutes, are either exterminated on their run-ways, or chased from the section of country so hunted. How different a sport is stalking or still-hunting, which requires all the skill of the true sportsman to come on the deer, and then fairly bag his game by his own exertions. I have always been opposed to hounding and see no "sport" in hiding behind a cover and shooting down the poor animals that are bounding away for dear life. I mention a fact, that at the last revision of the Ontario Game Act, using hounds in hunting deer was nearly pro-

hibited, and I wish it was. In Michigan, hunting deer with hounds has been totally prohibited, and not one pound of venison can be taken out of the State. Some American butchers came to Muskoka last year and killed and sent a large number of deer to their markets. Canadian Sportsmen should rise and protest against such destruction and unmanly slaughter. Will some other brothers of the gentle craft give us their opinions of these matters, not excluding "carpet" sportsmen. In conclusion, I may remark, that a "Royal head" was a term applied to the full-grown antlers of the Red deer of Scotland, which may yet be found in both England and in the wilds of Connemara, in Ireland, and it had twelve tines or spikes on both horns. Sir Walter Scott often mentions them, and in the "Fortunes of Nigel," a characteristic description may be found. King James the First, said he could die happy when he killed a buck with "twelve tines." I do not see how our common deer can have their horns compared at all to those of the majestic Red Deer of the Highlands. The Wapiti, or American stag, *Cervus Canadensis*, approaches very nearly to the Red Deer, and there is a great comparison between stag's horns and a common deer's. I cannot see how the term "Royal" can be applied to the Virginian deer's antlers, with any propriety.

J. H. GARNIER, M.D.,

Lucknow, June 23rd, 1881.

P.S.—One of your Correspondents, "Hammerless Greener," in your late issue amused me very much by a sly fling in a P. S., about my shooting robins. I do not retract one word I said about robins, otherwise, American Fieldfares, being a very dainty dish. Now, if "Hammerless Greener" is man enough to put his name to it, and write sensible remarks against a dish so much esteemed in the neighboring republic, I shall be glad to read gentlemanlike reasons of dissent, which would be preferable to a boyish sneer.

J. H. G.

NOTE.—We publish Dr. Garnier's opinions on deer's heads, although we cannot exactly agree with him. Doctors will differ, and it is possible that there are sportsmen who are not doctors who will disagree with his conclusions as to what constitutes a "Royal or King Buck." We have made the growth of deer horns a study for years; so did the late

Frank Buckland, who fully illustrated the Royal heads of European deer. We have had many opportunities of seeing and handling the heads of what are termed "King Bucks," belonging to the common deer (*C. Virginianus*). Instance the illustration at the head of Mr. Scriven's advertisement—that we take to be a "King or Royal Buck" head of *C. Virginianus*. We agree with our correspondent that the horns of all species of deer are variously produced, but independent of this fact, we can show a series of heads with horns of unusual or "King" typical form, and these heads are from different parts of the Dominion. We have on this continent three forms of *C. Virginianus*, all of which produce Royal heads, and when we compare these horns with the genus *Cervus* of Europe, then it is that we arrive at the conclusion that such are produced and they are termed here "Royal Bucks." Age has nothing to do with the growth. For instance, say that the nails on the doctor's fingers are not clipped for one year, they may probably grow the length of his fingers, and moreover take a spiral form. The argument that the growth is retarded by frost, is not natural, because the horns are fully grown, and there are not many bucks in the velvet by the end of September.

Since a portion of this note was in type, we received an addenda to the above letter from the doctor, in which he says that there is a great difference between the deer (Genus *Cervus*) of Scotland, and the common deer (Genus *Cariacus*) of America. We are perfectly aware of this, but the fact that they belong to two distinct genera does not disturb our theory that they are both liable to attain horns known as "King or Royal Bucks." A "Royal Head," although rare, is not typical but an abnormal form, occurring in all species of deer, and having said this much, we ask the opinions of others on the matter.—ED.

J. H. G.—"The Canadian Naturalist and Geologist" is published by Dawson Brothers, 159 St. James Street, Montreal. The price of the vol., covering two years, is \$3 in advance.

We do not know the Montreal journalist referred to; we have no time to enquire if he is a "scamp" or not. You had better address Detective Cullen of this city, who will ferret him out and send the required information.

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#### OUR FOREST TREES.

WHITE BIRCH; *B. alba*.—This is the smallest of the birch trees, seldom attaining a height of over 30 feet. It grows with the pitch pine in the poorest sandy soils, and is fit to cut for fuel in ten years from the seed. Its wood is of no other value, as it is soft and decays rapidly.

COMMON ALDER; *Alnus serrulata*.—A shrub or small tree, seldom growing more than 12 or 14 feet high and 2 or 3 inches in diameter. It abounds along water courses and in swamps, where its flowers are among the earliest harbingers of spring, sometimes displaying their tassels in the closing days of March. The wood, which is at first white and soon acquires a buff color, is chiefly used as fuel, and for making charcoal, to be employed in the manufacture of gunpowder. It is also taken for the hoops of small casks. Alder leaves are thought to have some medicinal value as an application to ulcers and to sore throats.

BUTTONWOOD; *Platanus Occidentalis*.—Next to the white pine, the buttonwood or plane tree is the loftiest and grandest tree of New England. One which grew a few miles from Newport forty years ago, measured over 24 feet in circumference at one foot above the ground. On the Ohio river the buttonwood acquires gigantic proportions. In 1820 the younger Michaux measured a stock which at four feet above the ground, was 47 feet in circumference. When standing near water this species is noted for the rapidity of its growth, and has been known to attain the height of 80 feet in 20 years. For some years the buttonwood of the Eastern States have been subject to a malady, not yet satisfactorily accounted for, which has destroyed many of the finest trees and has affected the branches and leaves of many others. In the South-western States the buttonwood, known there as the sycamore, is still vigorous and healthy. Very little use in the arts is made of the wood of this tree, for although firm and of pleasing grain, it is very perishable and liable to warp. As fuel it has been pronounced of fair value.



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# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 8.

MONTREAL, AUGUST 15th, 1881.

VOL. I.

## NATURAL HISTORY IN SCHOOLS.

We have had some experience in the way of explaining singular questions asked by young people relative to points of Natural History. The cause of this is easily explained. Books on Geology, Zoölogy and Botany, are generally expensive, and in many cases not within the reach of every ambitious young man or woman. We would advise beginners who are fond of zoölogical studies not to dabble in more than two branches of the science at one time. The study of Geology, Mineralogy and Crystallography combine and will not place the student in a quandary. The Mammalogy of this country constitutes a subject of great interest, and there are some instructive discoveries to be yet made, especially among the small rodents. The student who can take up this subject will find plenty of new facts to add to the present human knowledge. Ornithology and Oölogy go together, and although the natural history of birds have been pretty well worked up, still there is the interesting and almost new study of Oölogy from which it is probable to obtain many embryological features new to science. Again, there are probably some reptiles and fishes of whose economy we know little or nothing. We remember about thirty years ago communicating with the late celebrated Naturalist, Louis Agassiz, relative to a viviparous fish (*Cyprinoid*) which we discovered on the south side of Lake Ontario. A short time after this *Savan* discovered another species belonging to the same genus in California. Such instances alone should suffice to instill into the mind of the student acuteness and energy. By perseverance, many new things can be obtained. Moreover, it invariably occurs that the discovery of a new form is followed by that of another closely allied. It was only the other day that we had brought to us, a rare bat (*Vesper. tillio Novaboracensis*), a pretty little creature,

whose body is covered with reddish brown hairs. It was caught at Lancaster, Ont. The New York bat is rare in Canada; we took one asleep in daylight at Toronto, in 1846. It was suspended by its feet from a branch of a low tree, in the Hon. Mr. Allan's, Moss Park. This specimen was sent to the late Professor Agassiz, who informed us that the occurrence of this species at Toronto corrected a former statement of his regarding the geographical range of the animal, which was placed at a more southern latitude. The delightful study of Entomology in which great progress has been made of late years in the United States and Canada, can be combined with Botany, as it is necessary that the Entomologist should have some knowledge of the plants growing in his neighborhood. It is therefore important that these branches of Natural History should be taught in our Common Schools, at least the rudiments should be instilled into the minds of the young at a time when it can be enjoyed as a pleasant change in their daily exercises. We contend that a man cannot properly or intelligently fill the position of Judge, Barrister, Professor, Poet or Editor without some knowledge of Zoölogy. Many news writers can discuss and give clear and profound dialectics on subjects interesting to the general public in a secular way, but we believe that the additional knowledge of this nature would enable them to propound and elucidate matters which would produce the best results among the multitude. Why follow the old hum-drum system of education? The wide views of this progressive age calls for reform, therefore extend the advanced knowledge to the rising generation. Why should the systems of a semi-intelligent age be continued when better results can be attained? Give the young a knowledge of all new phenomena of nature that they may understand it, and become better men and women. Pay good



salaries to profound teachers who have a sturdy trust in their hands. Boys and girls at the age of twelve, are apt scholars, extremely inquisitive, and the information acquired by them at this age is productive of immense good. We believe before the expiration of five decades of time from the present, that the school system regarding Natural History will be as proficient as man can wish, and that towards the end of the century, many men will make grand progress in this noble science.

### LEASING SALMON RIVERS—THE PEOPLE'S RIGHTS.

"The subject who is truly loyal to the Chief Magistrate will neither advise nor submit to arbitrary measures,"—JUNIUS.

One who glances over a Dominion map, scanning that portion of the coasts bordering both shores of the Lower St. Lawrence, will notice a number of rivers flowing into salt water. Several of these clear water streams are doubtless frequented by Salmon and Sea Trout. Gentlemen from Europe, the United States, and different portions of Canada have discovered the surface-fishing value of a few of these rivers, which are generally annually leased by the Fishery Department, that the lessees may derive the sole pleasure of fishing them. Of course, the Government claim the rivers, and have a right to demand a revenue from some of them, but we are informed that there is an exclusiveness in the system which the maritime people consider arbitrary. They say the man who is able to pay his dollar per day to fish with the rod for salmon should be allowed that privilege on any of the Nova Scotian and New Brunswick rivers. The Department sustains a staff of employes, as officers, inspectors, fish-breeders and guardians at good salaries, in order to look after all matters connected with these fisheries. This is a natural consequence arising from the leasing business, and may be well enough, provided it is made to pay. But the Government has a right to keep the people contented—to prevent the creation of ill-feeling—

to see that they are not debarred from a right which was not denied to them prior to Confederation. The men of New Brunswick are determined to claim riparian rights, and we are informed that dissatisfaction exists, especially in Campbelltown and neighborhood regarding these restrictions. Sportsmen and residents on the Matapedia, Restigouche and tributaries, feel greatly annoyed that the Department should sustain monopolies, in preventing them from procuring local life comforts which they formerly enjoyed. We think the proper mode of settling this difficulty is to do away with leasing and appoint a resident guardian for each river. When the season arrives let this responsible man be at his post to arrange with the surface fishers, keeping a memorandum of every day rods are used. Of course the daily score will guide him. In this way the Government would satisfy not only the resident sportsmen, but the many visitors who doubtless would go there as heretofore, to spend money and enjoy themselves. When a gentleman pays for outfit, railway fare, hotel bill, gaffer, and one dollar per day for his fishing, the amount at the end of the season will be quite sufficient for the pleasure derived. The locality will also be benefitted by this change, because gentlemen who can have a chance of fishing at this rate will probably remain at the river's side longer than they do at present. This system would ultimately do away with a portion of the Departmental work, as well as saving the country about \$40,000 per annum.

The following supplement to the report of the Minister of Marine and Fisheries for 1880 has just been issued. It shows that the total expenditure in the Dominion for salaries and fish breeding for the year amounted to \$86,162 and the collections to \$19,423. The number of fish licenses granted was 4,334. The number of fishery offices in the outside service was 594. The total expenditure for fish culture, was \$29,109, and the number of young fish distributed is stated to have been 21,520,600. In the Province of Ontario, the salaries paid and the expenses of fish breeding was \$17,304, and in Quebec Province, 9,173. The collections in

Ontario for rents, license fees, fines and confiscations amounted to \$6,465, and in Quebec, 7,124. In the Montreal Division the number of fishing boats used was 1,152, valued at \$6,655. number of gill nets used was 1,032 and of seines 348. Quantities of fish caught during last season were as follows: 137,062 eels, 195 lbs. sturgeon, 230,400 lbs. trout, 3,100 dozen whitefish, 10,000 tommycod, 3,600 mas-kinonge, 1,050 barrels bass, 973 barrels pickerel, 975 bbls. pike, 15,305 bbls. mixed fish.

### ANTICOSTI.

This island, situated in the River and Gulf of St. Lawrence, about 400 miles below Quebec, is not frequently visited by sportsmen, for a good reason, that there are but few localities on it where sport can be easily obtained by rod or gun. Many persons are led to believe that there are good salmon surface-fishing on Anticosti, because the Fishery Department advertises the leasing of its rivers every season. We have been two summers on the island, visiting the west and east ends of it. Certainly there are some very handsome and luscious salmon taken in nets which are placed in the bays, but as regards good fly-fishing for salmon, it is questionable, as the rivers are generally too shallow. However, the pools contain excellent Sea and Brook Trout. A few salmon enter the Salmon River on the North-east side; the Jupiter on the South side, and Chaloup also on the South-side. There is another river called River a la Loutre, a stream entering the sea about twenty miles west of S. W. Point, which is said to be frequented by salmon and trout; but the other rivers are not deep enough to allow salmon to enter, and are not worth advertising; in fact we question if the Department had a legal right to do so. The tides are an obstacle to the above rivers being ever good for salmon; the fish can scarcely get time to enter them. In some of the bays, although the river may be deep enough near the estuary, the tide is no sooner at its height, than it returns towards its base. There is a difference in the tidal time between the West and East portions of the

island, and this, with the fact that there is good estuary feed, may account for salmon being found around it.

### THE APPROACHING YACHT RACE.

The failure of the Canadian built yacht, "Countess of Dufferin" to obtain the Queen's Cup, has not discouraged the Ontario yachtsmen from making another effort. The Bay of Quinte Yacht Club has challenged the New York Yacht Club, the holders of the "America" Cup. The Canadians are now building a sloop yacht at Belleville, Ont., to be named the "Atlanta," which will enter the contest. We are also informed that another yacht is being constructed at Cobourg, by Mr. Cuthbert, the celebrated yacht builder of Ontario. It is intended that she will compete for the Queen's Cup, which the Americans brought across from England, some years ago. The rules of the New York Yacht Club are peculiar and stringent, inasmuch as the prize can only be obtained by sailing on three successive days, and the holders of the Cup claim the privilege of sailing many different yachts in the race. Therefore the Canadian yachts will have to contend against the whole fleet of the New York Yacht Club. Of course, if we challenge our neighbors, it is with the knowledge that the rules of the American Club are to be complied with on our part, and if one of our vessels gain a victory under the circumstances, it will be another feather in the Canadian's cap. The flag officers of the N. Y. Yacht Club are dubious as to the sailing qualities of the "Atlanta," and the only vessel that can make a fair show against her, (the "Arrow") does not belong to a member of the Club. The owner of the latter yacht, Mr. Ross Winans is abroad, and therefore the vessel cannot be entered, as he must obtain club membership first. However, to make up for the "Arrow," said to be the fastest in America, Mr. David Kirby, the builder of the latter, offers to construct a vessel with finer lines, which in his opinion, can beat the

"Arrow." The new yacht will probably be called "Pocahantus." Details of her description and probable sailing qualities cannot be given, as they do not desire to inform the Canadians on these points; suffice to say that the new yacht will be three feet longer on the water line than the "Arrow," consequently she will be six feet longer on deck: these added lengths being aft. She is finer forward than Mr. Winan's vessel; her bilge in the wake of the fore channels being rounded off a bit, and it is thought she will run faster off the wind for this change. It was discovered that to windward the "Arrow" could not be beaten, but Mr. Kirby thinks the improvements in his new model, will not only equal the "Arrow," but that the "Pocahontas" will be easier on the helm, and a free runner before the wind. Her dimensions are 71½ feet on deck, 65 feet at the water line, 21 feet beam, and 7 feet 10 inches depth of hold. She is a centre-board sloop, her board being of yellow pine, 21 feet long, 9½ feet deep and four inches thick. It is fastened with about 500 lbs of iron bolts.

#### AN ENGLISH YACHT TO RUN.

For the first time in the annals of yachting an English racing cutter is to cross the Atlantic to try conclusions with the Yankee sloops, Mr. James Coates, of Paisley, intends to take his famous little ten-tonner "Madge" to America on the deck of one of the Anchor liners. Next week she will have some larger spars and sails than at present, to enable her to compete with the American sloops, all of whom have enormous masts and sails. "Madge" will be rated at about sixteen tons by the New York rules, and will have to compete with vessels quite double her tonnage. Two years ago Mr. Coates brought over from America one of the fastest sloops of her tonnage there, of about sixteen tons, with a Yankee to sail her, who on seeing "Madge" guessed he would beat that craft; however, "Madge" sailed round her in the first mile. Judged by that performance, "Madge" should have a good time in America. Mr. Coates deserves the best wishes of all yachtsmen for his sporting idea of showing the Yankees what our national rig, even when represented by a small boat is like.—*London World.*

#### MONTREAL AMATEUR ATHLETIC ASSOCIATION.

##### A GOOD CONJUNCTION.

It gives us pleasure to record the genial Association of the Lacrosse, Snow-shoe and Bicycle Clubs of Montreal. On the 25th of July, a special general meeting of the above Clubs was held in the Gymnasium to consider the Constitution and by-laws of the Association. Angus Grant, Esq., President, took the chair. Mr. Baylis, Secretary, read the proposed scheme to free the building from debt, which is at present \$12,000, but the Mercantile Library had about \$7,000 which probably could be obtained for the Association. The intention is to issue bonds without interest, to members of \$10, \$50, and \$100, to be paid off in ten years, by drawings at periods when the funds will allow. This was agreed to. The President then read the Constitution and by-laws, showing the objects of the Association, which are to encourage athletic sports, promote physical and mental culture among, and provide rational amusements for its members. Only amateurs are to be admitted on any account. The subscription to the Association is to be \$10; members of the Lacrosse Club paying \$7, of the Snowshoe, \$8, and of both \$5. Life members may be admitted on paying \$100; life members of the Lacrosse Club \$70; snowshoe, \$80, both \$50. Full members who subscribe twelve years from now will become life members at the end of that time. There are to be nine directors, four from the Lacrosse, four from the Snowshoe, and one from the Bicycle Clubs other arrangements being made as other clubs are admitted to the Association. Members will be elected by the directors, after the names have been posted on the club rooms; if anyone objects to a name, twenty-five members can have a meeting called to decide, and one black ball in ten will exclude. Members whose subscriptions are six months in arrears may be expelled by the directors and be sued for the



amount due. Any member guilty of ungentlemanly conduct may be expelled by a two-thirds vote at a special general meeting. The building will be open from 7 to 11 a.m. on week days, and from 2 to 6 p.m., on Sundays. No gambling or betting allowed, and intoxicating liquors cannot be brought into the building under any pretence whatever. After full consideration, the Constitution and by-laws were agreed to.

Mr. A. STEVENSON moved a vote of thanks to the Hon. W. W. Lynch for taking charge of the Association's Bill and procuring the remission of the usual fee of \$100. He also mentioned Messrs. McGIBBON and BOWIE as having given valuable help to the Association. The motion was seconded by Mr. STARKE and carried unanimously.

The PRESIDENT then made a few remarks, in the course of which he referred to the match of the 25th, as the best which had been seen in Montreal, and thanking the team for the victory they had won for the club. He then proceeded to give away the prizes for different competitions during the season, as follows:

Bowling competition—ten pins (handicap) C. J. Coursol, 2,980, gold medal; J. L. Gardner, 2,845, silver medal.

Bowling competition—cocked hat—G. F. Corcoran, gold medal; E. C. Haviland and E. Busted, silver medal.

Billiard tournament (handicap) 200 points—4 balls, J. L. Gardner, 12 out of 13, gold medal; G. F. Corcoran, 9 out of 13, silver medal.

General proficiency—gymnasium—first class—C. H. Gwilt, gold medal; J. T. Barlow, silver medal; H. Fisher, silver medal. Second class—J. Patterson and R. Locke, silver medals.

Shooting competition—small target—200 yards, C. L. McAdam, Gold medal; M. Freeman and E. C. Haviland, silver medals; R. B. Ross, gold cartilage pencil.

Shooting competition—large target—100 yards, C. L. McAdam, gold medal; M. Freeman and R. B. Ross, silver medals.

## THE G. T. R. BOATING CLUB REGETTA.

The sixth annual regatta of the Grand Trunk Boating Club, took place from Moffat's Island on Saturday the 6th instant. The G. T. R. Band played an excellent selection of music during the afternoon. The judges were Dr. T. A. Rodgers, Ald. Mooney, Mr. James McShane, M.P.P., and Mr. W. McWood; starter, Mr. A. Patterson; referee, Mr. Wm. Ross.

There was a fair wind, and towards the end of the proceedings plenty of rain, so the course was just as "lumpy" and unpleasant to spin over as could be expected. The following were the results:—

Double scull skiff, for boys under 17, two miles—1st, Anthony and Beattie, prize \$25 silver fruit basket, presented by Mr. F. R. Brown; 2nd, Berridge and Upton, \$6.00; 3rd Berridge and Riddell, \$3.

Single scull skiff, for club members—1st Henachine, prize Wallis Cup; 2nd, W. Morris; C. Girdwood, a good third.

Single scull skiff, for boys under 15, one mile—1st M. Patton; 2nd J. Anthony; 3rd A. Beattie.

Single scull shell, two miles—Won by Joseph Laing, prize \$25.00 cup; 2nd, L. Leroux, and R. Laing not a good third.

Single scull skiff, two miles, for members who never won a prize in any race—Won by J. Lovell, prize silver cup, presented by Mr. J. McShane, M.P.P.

Double Scull Skiff, two miles—Beattie and Morris, pulled a good race, and came in a good first; Ellis Brothers, 2nd; Morgan and Ogilvie fouled at the start and came in a considerable distance behind the second boat.

Consolation single scull skiff, two miles—1st, R. Laing, prize, cup presented by Mr. W. McWood; 2nd, C. Girdwood; 3rd, F. Moffatt.

Climbing greasy pole—Some twenty boys who entered for this, afforded the spectators great amusement for a time. It is a long pole that has no end, and to some of the boys it must have appeared much higher than Jack's bean stalk, for they would not make an inch progress in ten minutes. Finally W. Turnbull made rope steps and was thereby enabled to reach the long coveted top of the pole.

Duck Hunt.—This would have been an amusing event had the duck been properly started. There was about forty entries, and at first the duck took a lively interest in the affair, but it

was held so long by the old gentlemen who was to give it its "sweet liberty" that its interest flagged, and John Myers soon captured it. Prize, \$2 and the duck.

The races over and the rain commenced, the main trouble was getting home; there was no shelter on the island and punts and skiffs were above par. It is to be hoped that at the next regetta better accommodation will be provided.

### THE POINTE CLAIRE REGETTA.

The second annual regetta of the Pointe Claire Yacht Club, took place on the 6th inst., over the usual course and was very largely attended. The course being "choppy" and full of "white caps," sculling was rather a thing to be avoided than desired.

The first was the yacht race, for which the following craft entered:—

"Eolus"—Grenier and Brunet, St. Ann's; allows 3m. 12s.

"Waterwitch"—D. Lewis and F. Tracey, Longueuil: allows 3m. 24s.

"Oriole"—Wright and Raphael, Pointe Claire; allows 1m. 36s.

"Zephyr"—R. Barber, Pointe Claire.

"Petrel"—G. A. Campbell, Pointe Claire; 3m.

The "Oriole" came in first, "Waterwitch" second, "Petrel" third. The prize, a \$100 silver cup, is now the property of Messrs. Wright and Raphael; the "Oriole" having also won it last year. The winners receive in addition to the cup, a medal valued at \$10, presented by Mr. T. J. Claxton.

The boats which entered for the row-boat race were:—

"The Agnes,".....A. Ross, Pointe Claire.

"Frou Frou,".....D. Ducharme, Lachine.

"Alice," C. Thurston and Killaly, Lachine.

"Lottie,".....C. Houston, Pointe Claire.

The course was round the Dorval Light house and back, and seven of the boats were handicapped. The "Lottie" ran into Pointe Claire shortly after the start. When the light was made, and on the way in, while the "Frou Frou" and "Alice" were scudding along neck and neck, the former to the leeward, and the "Agnes" to the windward a short distance behind, the "Alice" capsized. Mr. Ducharme immediately lowered his sails and had his boat rowed to the rescue. The three men who were in the "Alice" were in the water for over an

hour, and were picked up by the crew of the "Frou Frou" after considerable trouble. A very high wind was blowing, at the time. The "Agnes" had a walk over the rest of the race. Mr. Ducharme entered a protest, and has left his boat at the Pointe, in the anticipation of the race being sailed over again.

The double scull lap-streak, won by Conway and Duquet, of Lachine.

Single scull lap-streak, won by Jno. Conway.

Canoe (two paddle) race—Messrs. C. DeB. Leprohon and G. Auldjo, of Lachine, won; Messrs. C. Nelles and Kohl, of Pointe Claire, second.

Tub race—W. Auchterlonie first, C. Holden second and G. Claxton third.

## Correspondence.

To the Editor of the CANADIAN SPORTSMAN and NATURALIST:—

DEAR SIR,—I regret that my Postscript about shooting robins should have annoyed Dr. Garnier. I do not question the delicacy of a dish of robins, nevertheless, I adhere to my assertion that I never knew a sportsman who shot robins for pleasure or profit. I object to the killing of robins, because the male is a favorite songster, protected in Ontario by Statute. Robins and other insectivorous birds can only be killed legally by men on their own land, and then only when damaging fruit. There is an old tradition of the origin of which I am not aware, that the robin is "God's bird," hence by many held sacred. I differ with the Doctor regarding the hunting of deer. There is infinitely more sport in a shot at a buck while leaping and bounding through the forest, than at one standing still; and the signal music made by the hounds is itself exciting and worth listening to. If either kind of hunting deserve the title of "Pot hunting," it is, in my opinion, "Still hunting." One skilled still hunter in a favorable locality, will kill more deer in a given time, than three parties of five each can with dogs. I have hunted frequently with dogs for deer, and I never knew of a deer driven by hounds out of his beat on the first day, that could not (if alive) be found in the same neighborhood on the second day. In conclusion, let me say that my experience leads me to think that "spike-horned" buck and doe differ in appearance and structure from the branching-horned kind; they are lower in stature, with finer heads

and heavier bodies. The Doctor, however, is correct in regard to the number of prongs as not indicating age. A very old buck may be recognized by the corrugations at the base of his horns. I also coincide with him that a comparatively small buck may carry a large set of antlers. The heaviest set I ever saw is in my possession, and they were carried by an animal under 150 lbs. in weight. I differ, however, with the Doctor about the size of the horns of the red deer of Europe, as compared with the Wapiti or stag of the Rocky Mountains. No species of the genus *Cervus* carries such heavy magnificent horns as the Wapiti, which is a larger animal than the Scottish deer.

Yours truly,

HAMMERLESS GREENER.

Ottawa, July, 1881.

P. S.—A surveyor informs me, and in whose word I implicitly rely, that he found a pair of Wapiti horns in the North-west last fall which he set up with the top points together, and walked under them without touching his head. My friend the surveyor is six feet two inches high.

I have three very fine heads of deer stuffed in addition to the large one above referred to. One with long spikes, very wide set and lofty, from a buck of 170 lbs. Another quite wide also and beautifully formed, with a spike nine inches long on each side growing backwards from the main arms of the antlers. This buck weighed 200 lbs. A third set are very small and regular in shape; weight of deer 175 lbs. I have also another head from a buck killed by a friend of mine in the Madawaska River, two years ago, which weighed 250 lbs. The horns are of great thickness, at the base, with great breadth and length in the main branches, and few prongs. Their singularity, however, consists of an irregular and unnatural growth of horn very thick and massive at the root, extending from the right side of the head. This abnormal mass of horns, bears twenty-one points.

NOTE.—The bird commonly called a robin in this country, belongs to the genus *Turdus*; it is therefore a thrush. Our correspondent's remark regarding "God's bird," may possibly have arisen from the nursery legend where it is said that the European Robin red-breast covered the lost babes in the woods with leaves.

In regard to the deer, it will suffice here to say that there is only one species of *Cervus* occurring in Ontario, and that although specimens are occasionally found which appear to the eye of man as indicating difference of structure, that these peculiarities are not sufficient to make a species—the formula of dentition alone is what determines specific characteristics, and as these have not been discovered to vary in the "Spike-buck," all the Ontario forms are only one species called *Cervus* (*Cariacus*) *Virginianus*.

#### OUR FOREST TREES.

LOMBARDY POPLAR; *Populus fastigiata*.—This tree, once so extensively planted and admired for avenues and roadsides, has had its day. It is of no value for shade, and its numerous dead branches, even on young trees give it an untidy appearance. It was introduced from Europe.

POPLAR; *Poplar*.—A rapid growing tree, valuable for charcoal, and pulp which furnishes a large proportion of the stock for paper collars.

WHITE WILLOW; *Salix alba*.—This is also a native of Europe, but has been extensively planted in new England. It grows rapidly to a considerable height. In England it is valued for its timber.

WHITE ELM; *Ulmus Americana*. The graceful curvature of the branches of this tree distinguishes it from all others and it may well be called the favorite shade tree of New England. The elms of Boston common, of New Haven, and along the valley of the Connecticut River, are familiar emblems of majestic beauty. They are attractive even when the foliage is gone from the airy sweep of the branches and the feathered regularity of the spray. The elm bears transplanting and pruning better than any other forest tree, and is of rapid growth. Its wood from the peculiarity of the grain, is very difficult to work, but it is often used for making large ships' blocks and ship's floors. For the hubs of waggons and carriages, it is preferred to every other kind of timber. Some elms in Massachusetts, though known to be nearly 200 years old and generally hollow at base, are still in apparent vigor.

SLIPPERY ELM; *Ulmus fulva*.—Though commonly a much smaller tree, this bears a strong resemblance to the White Elm, but is not by



any means so abundant. Many trees have been killed by being stripped of their bark, which is in great demand for medicinal purposes. This inner bark is an excellent application for poul-tices, in affections of the throat and chest, and for dysentery. Flour made by grinding it, and mixed with milk is a wholesome and nutritious food for infants and invalids. The wood is thought to be even superior to that of the White Elm for hubs, and in the Western States, it is employed in the construction of houses.

HACKBERRY; *Celtis occidentalis*.—This is usually a small tree; but occasional specimens have been found nearly forty feet high and 2½ in diameter. Its rough bark, angular limbs and very numerous branches give it the appearance of an oak. The dark purple fruit is very sweet with a large stone. It is stated that the wood of this tree is close, fine grained, and highly prized for shuttles.

WHITE ASH; *Fraxinus Americana*.—This graceful tree rises in the forest to the height of 70 or 80 feet, with a straight trunk and a diameter of 3 feet or more at the base. On an open plain it forms a broad, round head of great beauty, and it is every where a favorite object of the landscape painter. The wood is white and remarkably tough and elastic. It is used for hoe and rake handles, for wagon shafts, oars, frames of carriages and for furniture. The leaves are effectually applied to mosquito bites, bee stings and even snake bites.

BLACK ASH; *F. sambucifolia*.—The slenderest of trees, often reaching the height of 70 or 80 feet with a diameter scarcely over a foot. It usually grows in swamps, and will not thrive in dry situations. The wood is remarkably tough, and next to white oak it is preferred for the manufacture of baskets. For this purpose it is beaten with mallets until the fibre is somewhat loosened, when it is readily separated into thin ribbons. It is also used for chair bottoms, hoops and coarse buckets.

LILAC; *Syringa*.—An ornamental shrub with hard, close wood.

ELDER; *Sambucus*.—A coarse shrub, 4 to 6 feet high, bearing a broad cyme of white flowers, followed by small black berries, of which a tonic wine is made, while a sudorific tea is made from the flowers. The abundant pith is used in electrical experiments, and boys make pop-guns from the hollow shoots.

COMMON SWAMP BLUEBERRY; *Vaccinium Corymbosum*.—A shrub from 4 to 9 feet high; in swamps and moist woods, the latest and best

of all the huckleberries. The wood is of no use.

WITCH HAZEL; *Hamamelis*.—This tall shrub or small tree rises to the height of 10 to 20 feet. It has the remarkable quality of putting forth its flowers, which are of a showy yellow colour, as late as November, even while dropping its leaves. The wood is white, flexible and close grained. The Indians used the bark for poul-tices to allay inflammation, and an extract has been obtained from it which has some repute in medicine. The forked branches of this shrub were once believed by the superstitious to have, in the hands of certain men, a magical power in indicating the position of hidden springs or wells; hence the name witch hazel.

CRATEGUS; *Thorn*.—A shrub sometimes attaining the size of a small tree. Branches armed with thorns; wood very hard; would polish well.

PEAR; *Pyrus Communis*.—This tree grows rapidly and forms a tall and finely shaped head. It therefore combines the valuable qualities of a fruit and a shade tree; its wood is of reddish-white colour, heavy, firm and of a very close grain, and ranks next to box-wood for the use of the engraver. When stained black it makes a good substitute for ebony.

PYRUS MALUS; *Apple*.—The wood of this well known fruit tree resembles pear wood in most of its properties, except that it is lighter. It is much used by the turner, and is made into shuttles and walking sticks. Apple-trees have been seen in Massachusetts more than 70 feet high.

MOUNTAIN ASH; *Pyrus Americana*.—A small tree, seldom more than 25 feet high, of slender delicate proportions. It is often planted as an ornament to lawns, but its wood is of little value.

GARDEN PLUM; *Prunus domestica*.—Cultivated for its fruit.

WILD RED CHERRY; *P. Pennsylvanica*.—A slender tree, about 20 feet in height, and very abundant in New England, but on the Ohio River it ranks among the largest trees of the forest. The fruit though bitter has an agreeable flavor which it imparts to cherry brandy. The wood is of a light red color, growing darker and richer with age. It is close grained, compact, and takes a good polish. It is much employed for tables and other cabinet work, and compares well with the inferior grades of mahogany. The bark has tonic properties, which are of some repute with the medical faculty.

# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 9.

MONTREAL, SEPTEMBER 15th, 1881.

VOL. I.

## WILL THE LOBSTER FISHERY FAIL?

The demand for this excellent article of human food is increasing yearly, and the system of canning the crustacean is as perfect as it possibly can be. The question may, however, be asked,—Will the thousands that are captured every year, cause a scarcity? Will it ultimately produce a failure in the business? Our opinion is that the unlimited license given to parties to net salmon in estuaries and inside large rivers, notably the Natashquan, is to a great extent, the cause of the late scarcity of the fish in the Lower St. Lawrence. We are told that a French steamer made two trips from France to the North coast of the Lower St. Lawrence for Salmon this season. They offered and paid ten cents per pound, which is a fair price at risk. There are no objections to this trade, but we decidedly put down our foot and say with indignation, that the Government who aids and abets such wholesale slaughter has yet a heavy penalty to pay to her people. The law has been violated for filthy lucre. We trust this will not occur again. If similar netting is carried on in other large maritime rivers, the result will certainly continue to decrease the number of salmon. We have learned from one of the party who fished the Natashquan this season, that with few exceptions, all salmon taken with the fly had marks of a struggle in nets which were placed inside the estuary in the river. This is not giving fair-play to fish or lessees, the latter coming annually from England to enjoy the sport. Those who pay well for river surface fishing, have a right to demand the Fishery Department to keep the entrance clear, and we have positive proof that Mr. Jervois, the lessee of the Natashquan, has not been fairly treated by the Department, especially this year. The Federal Government make the sporting resources of the Dominion known to Europeans by distributing pamphlets

by agents throughout the nations, and a man of means induced to lease a Canadian river for the space of a month, afterwards discovers that the fish expected to run fresh from the sea instead of being full of vigor are lying sick at the bottom of a pool. This is anything but encouraging to sportsmen, particularly British Now, regarding the lobster it is different in its mode of life from a fish. The object of proprietors of canning houses should therefore be to prevent the destruction of female lobsters. When they are carrying their ova they should not be destroyed, but allowed to escape. It is the only safe mode by which the species may be kept increasing. Besides the young lobster has so many enemies that we may safely say thousands are destroyed after the crustacean becomes the size of our river crawfish. It is a glaring fact that this important lobster business is not properly recorded. We have no accurate figures as to the number taken in the Dominion for canning, nor any descriptive account of the establishments for that purpose. Tom-mycods and eels are noticed; fishes which are of little commercial value outside the Province of Quebec. Salmon canning is also in the same category as the lobster. Surely those two branches of Canadian industry should have some recognition among our fishing resources. Of course we make this statement from a Fishery report given in our last number. There may be Reports giving the amount of salmon and lobster collected in the Lower St. Lawrence for canning purposes, but they were not sent to us, and we therefore place the subject before our readers in order to show how this industry stands. The bays of Anticosti abound with lobsters, and although this fact has been known for many years, no attempt has been made to establish a canning-house on the Island. It occurs to us, that there is a lack of keen venture among the Canadian people in

thus allowing a vast amount of good nourishing human food to be swallowed up by marine animals. We are of opinion from what we have seen of the lobster of Anticosti, that canning houses on the island would be a success. The crustacean in its season enters all the bays around the coasts, and by means of traps, immense numbers could be canned every year and a business of this nature can be established on the island without a large expenditure of money. We must however repeat, what we said before, do not destroy the lobster while carrying spawn. If you do, the business will fail. Greed and bad management may be said to have been the cause of destroying the productiveness of our salmon rivers. Let this not be the case with the lobster, which, although hardy and quite able when adult, to fight its aquatic battles with equals, has not the instinct to evade the traps laid for its capture. We are therefore anxious while they are at the mercy of man for food, that he will give them fair play in order that they propagate their species. We would be pleased to hear from any one interested in this subject, and communications giving additional information regarding the natural history of the lobster, or statistics of the trade will be of value.—C.

### THE SHOOTING SEASON.

The time has again arrived when the Sportsman may lay aside his rod and reel, and with gun in hand betake himself to the forest or marsh, in search of game on which to exercise his skill. The young of the Black Duck, Teal, Woodcock, Ruffed Grouse, &c., are now pretty well matured, and strong enough on wing to afford excellent sport. During the early part of this month great numbers of Black Duck and Teal are shot in our various marshes, the hunter at this time, being usually able to secure a fair number of birds by paddling through the reedy streams, which are their favourite resorts, and picking them off as they rise at the approach of his boat; later in the season, how-

ever, as they become more hunted, these birds acquire a wariness which makes it necessary to adopt a different mode of procedure; decoys and covert flight shooting are then resorted to.

The Black Duck is at all times exceedingly wary, and will seldom notice artificial decoys. Sportsmen should therefore provide themselves with a few live ones, as though inconvenient to carry, they cannot always be procured in the vicinity of the shooting grounds. Woodcock and Snipe are not yet numerous; the greater number of these birds breed in the far north and migrate at the approach of cold weather, stopping for a short time at their favourite grounds as they pass, affording the sportsman an opportunity to vary his sport. During October the various species of Fall Ducks arrive in great numbers, and as they decoy readily, their flocks are considerably thinned before they have visited us many days. Although decoy shooting is tolerated in the greater part of the Dominion, it is not considered sufficiently destructive by some "pot hunters," and the use of swivel and punt guns is sometimes resorted to; this is, however, illegal, and should not be permitted.

Golden, Black Bellied and other species of Plover usually appear in great numbers during the latter part of September, and remain for some time before proceeding to their winter feeding grounds. Last, but not least of our game birds, is the Ruffed Grouse; as this bird does not migrate in Winter, it is generally sought by the sportsmen later in the season when most of our other species of game birds have departed. It is difficult to imagine a more exhilarating sport than a tramp after Grouse on a frosty morning in November. With a staunch, well trained dog, a fair bag may sometimes be secured, but as a rule the misses are frequent, and the sportsman must not be disappointed at an average of which he would feel ashamed if in the pursuit of other game.—WALLACE.



## SHOOTING RESERVES.

The Montreal *Star* of the 8th instant, would make us believe that there are shooting reserves in Canada. That the Government should offer facilities for letting out certain rights to sportsmen. What rights? Where are these shooting rights or reserves? We have never heard of them and do not believe they have an existence. We know that the Government claim all the rivers, and offer to lease them every season? In regard to inducing Europeans to come to Canada for sport, we have one instance this year of how gentlemen from England are treated when they lease a Canadian river.

If the Government has shooting reserves, we would be pleased to know where they are? It is a new thing for us to learn that the lovers of the rifle and the fowling piece are not to enjoy the sport in season without asking permission from Government. When that pleasure is taken from the Canadian Sportsman, farewell to his rural liberty. It is quite sufficient that the Fishery Department lease the Salmon rivers without taking from the subject his rights in the marsh or forest.—C.

## THE MONTREAL "STAR" ON FISH AND GAME.

The above paper in its issue of the 27th ult., speaks editorially on our Fish and Game. He says "out of five thousand eggs hatched by fish in a *natural* way, only about *one* egg will hatch out; out of five thousand eggs hatched in an artificial way, *four thousand* on an average are hatched out."

We ask the *Star* where he obtained this information? and furthermore what species of fishes are referred to?

The artificial breeding of fish, especially *Salmonidæ*,—is certainly good, and doubtless may be productive when carried on in rivers connected with salt water; but to cast young fishes of the above order into an inland lake, is the most unscientific and expensive mode of fish propagation we have ever heard of.

The *Star* thus tells us that nature has lost a force, which is now supplied by artificial means. Nonsense; the disparity is too glaring, and has no facts to sustain it.

He says: "Take for instance, whitefish;" What whitefish? Why not name the species? Whitefish of various forms occur in almost every Province of the Dominion, and it may be possible that their isolation is the cause of enmity between them. Be this as it may, we have no proof that the parent whitefish devours its own eggs. It is, however a fact, that the sea trout will follow *Salmo salar* to its spawning grounds, where it devours the eggs of the salmon.

The most absurd statement made by the above paper is that ducks known as "widgeon redheads, canvas-back and bluebill devour fish spawn in immense quantities." This information is altogether new in an ornithological view, and the writer should certainly be awarded a leather medal for the discovery. Again, speaking of shad, it is useless to experiment on that fish; if they are allowed to propagate in their old natural way, the markets of the United States and Canada will always be well stocked with this fish in season. We contend that the artificial breeding in inland waters of fishes that frequent the sea, is both a waste of money and time, and the sooner it is abandoned the better. Protection during the close season for each species, is what we wish to see carried out, and if that is properly performed, the fish will do what the Creator commanded they should. It is nonsense to say that "our fish would go just as the buffalo and the moose are going." No living man can make a comparison between the forces acting on terrestrial and aquatic animals, more especially in regard to their abundance or scarcity; and if the writer in the *Star* had lately passed through the forests frequented by moose and caribou, he must have done so with closed eyes, as these animals have never been known to be so abundant as at present. We could inform the writer what has produced this, but that is not necessary at present. We

thank the *Star* for the latter portion of his article, and, if when writing on "Fish and Game," he would keep his eye on the "Pot-hunter," discover, arrest and fine him, then the space appropriated by the paper would be of use to all parties concerned.—C.

#### RARE BIRDS IN CANADA.

It may not be generally known that the Green Heron (*Butorides virescens*) breeds in Canada. During three years past, a few of these herons have been forming small communities in neighbouring swamps and woodlands adjacent to Missisquoi Bay. Mr. Chris. Beatty, our old sporting friend, presented us with a very good specimen on the last day of August. A sharp look-out should be kept for strange ornithological forms, as it is probable that many rare species which visit latitudes north of Montreal may be overlooked. In the month of June, several years ago, we shot a male of the Blue Bunting (*Cyanospiza parellina*) at Baie Mille Vaches, on the north shore of the St. Lawrence. Instances like this illustrates the changes that occasionally occur in the latitudinal ranges and longitudinal circles of birds. The following birds were shot by Mr. N. A. Comeau, at Godbout, Lower St. Lawrence, in latitude 49 20. Yellow-headed Blackbird, (*Xanthocephalus icterocephalus*.) The occurrence of this bird in the above latitude is to us a paradox. Mr. Comeau is an intelligent student of Natural History, and his keen eye detected this bird in the neighbourhood of his house. We are not surprised when we record the accidental appearance in Canada of birds and insects belonging to the far West and South. Insects have been discovered in Canada which have so far puzzled Entomologists. They are supposed to come here by the force of atmospheric currents, but this is mere theory. Several specimens of the Blue Bunting were shot, and a nest of this species containing four eggs was found in a stump near Mr. Comeau's house. A nest of the Hudsonian Tit (*Parus Hudsonicus*) with four eggs was also found in an old

stump in the vicinity of Godbout. This is the second nest of this species found in Canada; Audubon having found the first while travelling in Labrador. The nest is a curious structure. The bird selects an old stump or dead tree, making a cavity similar to that made by the Black-cap Tit or Downy Wood-pecker. The Hudsonian Tit has an eye to comfort for itself and progeny; it lines the interior walls of the tree with hairs from the common white Northern Hare. When the nest is properly taken out it resembles a bag generally about twelve or fifteen inches long. The youth who discovered it, obtained ten dollars for nest and eggs.—C.

#### THE GODBOUT RIVER.

Considering the scarcity of salmon in the St. Lawrence this season, the Godbout scored a fair average. Two gentlemen fished it with the following result: 53 salmon, averaging about fourteen pounds each; 15 grilse, averaging four pounds each. A large number of sea trout were caught by anglers, besides 5635 trout taken by the seine after the salmon season was over.

#### THE ST. CHARLES RIVER.

In an article on Salmon and Trout Rivers and Lakes of Quebec in our January number, we made remarks on the St. Charles, near the city of Quebec. This river, at one time worthy of being angled for Salmon and Sea Trout, was doubtless a source of pleasure to a few Quebecers who loved the sport at that time, knowing also that these luscious fishes passed their doors towards the pools near Lorette. But alas! a change has come over the waters of the St. Charles, and the delicate Salmon will not now enter its poisonous waters.

It appears that a few years ago a building was erected on its banks, near Lorette, for the manufacture of pulp or paper of some kind. A pipe leading from these premises to the river conveys the refuse and poisonous acids into the clear spring water of the river, preventing the passage of fish and destroying all that

frequent its neighborhood. Why do the Fishery Department allow the waters of this river to be poisoned, when its officials are aware that a statute exists to punish any one who willfully do so? We demand inquiry and some explanation must be given in regard to this filthy drainage. The Department at Ottawa should see that a river long known to have been frequented by Salmon, and in which Sea Trout were seen a short time ago, is not to be destroyed with impunity. We are determined to expose every case of this nature coming to our knowledge, and when the parties or authorities who should abate the nuisance are slothful, we will have no mercy, but lash with the full force of our will.

C.

#### CANADIAN MUSEUMS.

When this Magazine was issued last January we intended to give sketches of the Natural History Museums of the Dominion, their means of support, and how the material is procured; in fact, all our knowledge regarding them, together with the influence they are supposed to exert in the instruction of youth. We, therefore, commence with

##### THE LITERARY AND HISTORICAL SOCIETY OF QUEBEC.

This is, probably, the oldest Literary Institution in Canada. It has been, however, very unfortunate—fire having destroyed its library and collections on two occasions, at least. Its present Museum was started when the Society became tenants of Morrin College, in 1861, after the fire which destroyed its library and Museum in the Banque Nationale building on John street, Quebec. The Museum is now on St. Stanislas street, in the College building. The collection is slowly increasing, but the room is too small, and poorly lighted. The collections of animals and birds are in good preservation, and there is also a fair show of ethnological material, affording instruction to students attending the College. Therefore, it is useful in its present position. We have seen enough of isolated collections or museums

in this country to speak intelligently on the matter, and we may say that, outside of an educational point of view, the public take little interest in them; but when connected with an educational institution, parents will support them because they are cognizant of the fact that the youth have a chance of obtaining a more accurate knowledge of forms preserved from every branch of nature. When Natural Science is taught in schools it is highly necessary that collections of minerals, shells (fossil and recent), and a good herbarium should be at hand, to illustrate lectures. When youth is determined to study, it is proper that the love for it should not be cooled by other objects in the way of arriving at the truth. We say that every University, College or School having a good Museum, claims the hearty support of the public, because the material forming these collections cost a large amount of money. Since the Literary and Historical Society of Quebec became associated with Morrin College, its Museum is a source of attraction, and many donations have been made to it of late years.

C.

#### REVIEW.

The Annual Reports of the Montreal Horticultural Society, and Fruit Growers Association of the Province of Quebec, are full of original matter, and extremely interesting during the last five years. We are pleased to state that the issue of 1880 is the best of the series. The article on "Forest Tree Culture," by the Hon. H. G. Joly, is just what we would wish to insert in our journal, and we have a peculiar feeling—not jealousy—when we cannot procure these profound investigations. Mr. Joly is a noble example of the son following the footsteps of his father. We have had the pleasure of being acquainted with the latter; it will suffice to say that in a scientific view one is the prototype of the other. Mr. Joly's experiments are well worth repeating. "Forestry in Canada," by A. T. Drummond, a gentleman who has devoted much leisure in promoting modes for



conserving our forests—is well worth perusal—it being well-timed, and we trust that the Government of Manitoba will see the utility of adopting Mr. Drummond's suggestions. We are highly delighted with the article on the "Native Plants of the Province of Quebec," by J. B. McConnell, M.D. The Department of the Interior should reprint the doctor's description of our plants in the next Report, and distribute them largely throughout Europe. This is just the kind of information required by Europeans. It gives at once a fair botanical view of this Province, and from which an easy comparison may be made between it and the Western and Northern Portions of the Dominion.—C.

## Correspondence.

To the Editor of the CANADIAN SPORTSMAN and NATURALIST:—

FROM A CANADIAN SPORTSMAN IN  
FARGO, DAKOTA, U. S.

SIR,—Your welcome bunch of the CANADIAN SPORTSMAN and NATURALIST, came to hand in due time. I devoted a pleasant hour looking over what some of my old friends and brother sportsmen have been doing during the last two months in Canada. I suppose that although I am now in Dakota, I am still Canadian and a sportsman at that. I write this letter regarding sport in this portion of the Northwest. Fargoites have little time for pleasure, but we manage to get an occasional day. Three of us sallied forth, duly equipped, for one of the numerous sloughs near here. On our arrival we took up positions about two hundred yards apart, and sent our dogs (trained for the purpose) into the rushes to beat up the game, which occurred in countless numbers. Small flights of duck passed us almost all the time. I soon warmed up to the sport, and as there was a sharp wind blowing, I need not inform my duck-shooting friends (including Chris.) that it was no child's play to score a good average. I managed to keep my retriever busy, and uphold the honour of a Canadian gunner, as I scored the largest bag, expending the fewest cartridges of the party, who were no tyros. My bag was thirty-seven ducks to forty-four cartridges, and even you, hoary patron of sportsmen, must, I think allow that that was fairly good on a windy day.

In the afternoon we took a stroll across the country and shot prairie chickens, concerning which I have come to the conclusion that they are better eating than they are sport. We all succeeded in making ourselves tired and thirsty on this tramp, and were highly pleased to get back to our drag and a case of "Budweiser" we had in it. Any one not knowing what Budweiser is, let him refer to some one who has travelled west of Chicago; suffice it to say, it is a substitute for water, largely used by the inhabitants of this part of the world. I contemplate being one of a party going north to the Devil's lake, (so-called) for antelope shooting shortly. If I do make the trip and you care for such loose-jointed rambling notes for your spicy little journal, I will be very glad to give you an account of the expedition and its results, and may send you a specimen or two that I come across.

Wishing you all possible success,

I am yours, &c.,

WHISTLE WING.

ROBINS.

DEAR SIR,—I quite agree with everything your correspondent "Hammerless Greener" says respecting the unsportsmanship and cruelty and folly of killing robins. The tradition to which he refers as to the name "God's bird," dates further back, I think, than the legend of the Babes in the Wood. The tradition is "that while our Lord was on his way to Calvary, a robin pecked a thorn out of his crown, and the blood which issued from the wound falling on the bird dyed its breast with red." This tradition, however, of course refers to the English robin redbreast, and not to the Canadian miscalled robin. While up the lakes last week I captured a frog with a tail. The animal was  $2\frac{1}{2}$  inches, the tail measuring one inch. The tail is, of course, the tadpole tail, which from some cause or other, failed to become detached when the legs were developed. It has grown with the growth of the frog, and is about a quarter of inch wide at the insertion.

VINCENT CLEMENTI.

Peterboro', Aug. 29th, 1881.

NOTE.—The bird called robin in America, i. e., *Turdus migratorius*, has neither generic or specific connection or resemblance to the robin red-breast of Europe. Our correspondent quotes a curious, and to us unknown, phrase regarding God's bird, and we are anxious to know where he obtained the information. It

appears to us that there is an overstretch of history in the matter which is veiled in obscurity and we are anxious to see the quotations.

The tadpole form of frog is by no means rare in the vicinity of western lakes. The development of young frogs depends on the amount of warmth they receive during their early aquatic stages. The eggs or spawn are deposited in shallow semi-stagnant water, and the heat from the sun produces the tadpole.—C.

#### A TRIP TO RIGAUD.

On the 19th of last June a friend and myself anxious to avoid the heat of the city, left to enjoy a couple of days in the neighboring forests near Rigaud, a village situated on Rivière à la Graise, said to be forty-five miles from Montreal. We obtained a boat and entered that river at its mouth, where it flows into the Ottawa river. In this vicinity we noticed kildeer plover (*Aegialitis vociferus*) in a ploughed field. The occurrence of these birds at this date indicates that the locality may be a breeding-ground; we, however, discovered no nests of the species. By crossing the Ottawa, we landed on Jones' Island, a part of which is cleared, forming a good farm. Passing through a patch of ferns, a woodcock was flushed, but we could not find its nest. A few days afterwards I met Mr. Jones, who informed me that he saw young woodcock, and he also said that about the 10th of May, a black duck's nest was found on the Island. The eggs of this duck (*Anas obscura*), were taken away and placed under a domestic hen, and they were hatched in due time, but the ducklings followed their wild nature, took to the water, and never to his knowledge returned to their foster mother. We enjoyed the scenery, and the exercise gave us vigour, but there was one annoyance to mar our pleasure; mosquitoes swarmed upon us, and we were obliged to leave the island sooner than we anticipated.—WOODCOCK.

Montreal, 27th August, 1881.

#### OUR FOREST TREES.

(CONCLUDED.)

CHOKE CHERRY; *P. Virginiana*. — A tall shrub or small tree. The wood is of no value, but the tree is very pretty when in flower and fruit.

HONEY LOCUST; *Gleditschia*. — This tree has been introduced from farther south, where

it often reaches a great size. Its graceful appearance and long, sweet pods make it an interesting tree. The wood is very hard, but is much worked by worms, and it is difficult to get good specimens of much size.

RED MAPLE; *Acer rubrum*. — This is also called the swamp or soft maple, and is a tree of middling size, growing abundantly in low grounds. The bright red flowers in spring, and the brilliant leaves in autumn, make the name Red Maple highly appropriate. It is not uncommon to see a single tree in a copse of maples, turning to a crimson or scarlet, as early as August, while all the surrounding trees remain green. This is believed to be a proof that the frost has very little to do with the autumn colors. The wood is whitish compact and firm, is well suited for turning, and takes a fine polish. It is much used for common bedsteads, and other cheap furniture. It is however not strong, and when exposed to dampness speedily decays. Authorities differ widely about the maples. Mr. Emerson asserts that the curled maple is a variety of the red, and the bird's eye, a variety of the sugar maple.

WHITE, OR SILVER MAPLE; *A. dasycarpum*. This rapid growing and handsome shade tree is abundant in western New England, but not common eastward unless planted by man. It reaches a good height, and forms a fine spreading top. The roots are believed to impoverish the soil around them by their long ramification. As intimated above, the wood is said by some authorities to be of little value, while others place it at the head of the maples. Its sap contains some sugar, but far less abundantly than the sugar maple.

ROCK, OR SUGAR MAPLE; *A. saccharinum*. — This noble and valuable tree often grows to a height of eighty feet, and when in early foliage and flowers, can scarcely be surpassed in beauty. South of New England it is more prized as a shade tree, though its slow growth detracts somewhat from its general merits. The wood is much used in cabinet work, being capable of a very fine polish. But it is as a source of sugar supply that this tree claims its highest value. There is good evidence that from 35 to 40 pounds of sugar have been made in one season from a single tree, and that a barrel of sap has been taken from one trunk in 24 hours. These are extreme cases. The average is from 12 to 30 gallons of sap or 3 to eight pounds of sugar from a tree in one season. This industry is one of the chief sources of income to New England farmers.



**STRIPED MAPLE ; *A. Pennsylvanicum*.**—This pretty tree is seldom seen more than 12 feet in height, yet it occasionally measures twice that figure. In Maine it is called Moose Wood, the bark and tender branches being the favorite food of the Moose. The bark is beautifully striped with green and brown. The leaves are successfully applied to inflamed wounds and bruises but no use has been made of the wood.

**STAG HORN SUMACH ; *Rhus typhina*.**—This tall shrub sometimes rises to the height of 25 feet and thus becomes a small tree. It is conspicuous in the autumn by its bright red clusters of fruit, and its leaves of varied and brilliant hues. The leaves and bark are used in tanning, and the root has been found efficacious in fevers.

**BASSWOOD ; *Tilia Americana*.**—This tree standing alone forms a beautiful and striking object in the landscape, from its regular conical outline and its rich masses of foliage. Its wood is soft and white, and of a fine close grain. It is much used for the panels of carriages and wagons, for bottoms and sides of drawers, for broom handles, and where pine is scarce, as a substitute for that in inside finishing work. It is also carved into bowls and toys, and its charcoal is by no means inferior.

### A GENERAL DELUGE.

BY G. W. BROWN, M.D.

(From *Our Home, and Science Gossip*.)

A tradition prevails among all nations that a general deluge has inundated the world, and that the globe has been peopled from the east.

Without regard to the sacred writings of different nations, let us see if there is any probable foundation on which to predicate an opinion that a universal flood has swept over the earth, and destroyed all life which it contained, save such as was preserved in some miraculous manner for the perpetuation of the species.

It is well known to geologists that continents and islands have been frequently submerged by the ocean, and have as frequently emerged from their watery beds. It is on such a hypothesis alone we can account for the immense lime formations, with their fossil remains, lines of stratification, and other evidences of aqueous formation, extending over almost limitless regions.

The microscope reveals the fact that all our native coals, even anthracite and cannel, have a ligneous origin. They are the products of the immense vegetable growths of the car-

boniferous period, when the earth and temperature were especially adapted to the production of this form of life. By some mighty convulsion the continent on which they had grown sank below the sea level; the waters rolled over them with great force, prostrating the dense verdure. Each succeeding wave brought a fresh deposit of debris, which buried it deeper and still deeper beneath the ocean bed. The phosphate of lime, held in solution by the higher temperature of that era was precipitated by its reduction, in which are now found the fossilized remains of the moluscan and crustacean formations of that era, and adapted to its elevated temperature.

Again the bed of the ocean was elevated, and became dry land. Another growth of vegetable life followed, to be in turn submerged, as in the preceding instance, and then emergencies and depressions followed each other through long cycles, as numerous as different strata of coal are superposed one above another. The chemical conditions which prevent wood from decomposing under water, deprived of the oxygen of the atmosphere, to which were added immense pressure, effected its transformation into coal.

Volcanic eruptions, more grand and terrific than anything we have any conception of, in consequence of the then comparative thinness of the earth's crust, the interior heat of the molten mass beneath, and the denser atmosphere surrounding it, made the depressions and upheavals more frequent than through subsequent periods.

When the temperature of the surface was sufficiently reduced to admit of it, evidenced by their fossilized remains in the rocks, the earth was peopled with higher and higher forms of life, each emerging from lower forms, until, lastly, man appeared. Through the long and almost interminable ages that followed, his successors spread over continents and islands. Each was populated with such orders of life as was best adapted to its peculiar climate and productions. Thus animal life was adapted to the surrounding conditions, not the conditions to the needs of the animal, for it was of a later creation.

Those immense bodies of land, now covered by the Pacific, Indian and Atlantic oceans, sometime in the very remote past, were continents. At the same time much, and perhaps nearly all the continents of Asia, Africa, Europe and America, formed the beds of coterminous oceans.

(TO BE CONTINUED.)



# THE CANADIAN SPORTSMAN AND NATURALIST.

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VOL. I.

WILLIAM COUPER, EDITOR.  
W. W. DUNLOP, ASSISTANT EDITOR.  
ERNEST D. WINTLE, TREASURER.

## DESTROYING DEER.

We have received the Fourth Book of the Michigan Sportsmen's Association, being the transactions in full of the Sixth Annual Session held at Lansing last January. It embraces several questions of vital importance to the Association, especially regarding the Fish and Game of the State. The Sportsmen of Michigan deserve the sympathy and support of all who love to use the rod and gun, and we trust that the State Legislature will embrace and carry out the Laws which the sportsmen of Michigan are anxious to enforce. The late enormous slaughter of deer within the range of the Sporting regions of the Association is sufficient to cause enquiry, and if such illegal killing is not prevented, the ultimate result will be the total extinction of *Cervus Virginianus* in the State of Michigan. We give the following extract from Prof. H. B. Roney's elaborate paper on the destruction of deer in 1880.

### TOTAL EXTINCTION INEVITABLE.

"These statistics give a grand total of 70,000 deer, or about 10,000,000 pounds of venison destroyed in Michigan in the one year of 1880. At this rate how long will it take to exterminate the species in Michigan? How long can the State stand this drain, before the last relic of the noble race disappears? Just about five years, and they will become scarce in less than twelve months, as indeed they are already. And when the present supply is gone, where can the next come from? Certainly not from the North, East, or West, for that is a geographical impossibility, while from the South it can not be expected. Unlike other States which border upon vast wildernesses out of which a new supply comes to replenish the disappearing race, the Lower Peninsula of Michigan, when it has once permitted this noble animal to be exterminated between lakes Michigan and Huron, has for

ever lost a great source of wealth and valuable food supply, which if now wisely preserved will last for generations."

The Sporting Clubs of Canada will have to keep a sharp lookout in order to prevent a similar slaughter along the woodlands of our Northern lakes, because we are fully aware that when market hunters are not allowed to enter the woods of Michigan, they will doubtless have to procure the animals from other localities, and they will enter Canada for their game. We have had an instance of this from market fishers who had a contract to supply American hotels with a weekly weight of Brook Trout, the fish being then supplied from the Adirondacks. The ponds or lakes of the latter locality were quickly exhausted and could not supply the demand, but in order to do so, the contractors came to fish the trout regions in the Province of Quebec. One thousand pounds was the weekly weight sent out, and this was carried on profitably for nearly three years before the Fishery Department stopped it. The taking of this quantity of trout at that time from the Laurentian lakes, did not, in our opinion, make a great difference in the way of decreasing the annual production, as the natural facilities for the propagation of trout in our Northern lakes and rivers, are not surpassed in any other portion of the world. The spawning-grounds adjoining our northern mountain lakes are cool and numerous, and will therefore be always productive.

It is different with deer, which are only found within their food ranges and are accessible during the open season. We cannot allow American market hunters to enter these deer frequenting localities to slaughter them as they have been in the wilds of Michigan. This privilege is only for the humane sportsman who goes out to enjoy a few days, not with the purpose of making money from his skill in handling the rifle—not with the intent of destroying

more than can be useful to himself and friends—not with the selfish thought of sending the carcasses of the deer to market. To such a sportsman this kind of recreation partakes of the thrill well described by the ancient hunter. But to the market hunter, no such thrill enters his breast, his motive consists in quality, quantity and weight, knowing well that he can easily obtain a market for his ill-gotten flesh. The species of deer inhabiting our northern forests have increased since the British troops have been removed from Canada. The enormous quantity of moccasins and snow-shoes made for soldiers was, in a great measure, the cause of the scarcity of Moose and Caribou. The Indians who made the articles had to obtain the material, and the Canadian woods and mountains were hunted in and out of season to supply the demand.

It is reported that the late bush fires destroyed a number of deer, and it is furthermore said that many were shot while retreating from the heat and approaching clearings. Thus between woodland fires and the power of man, little chance had they for existence. Those who destroyed the innocents under these circumstances and at such a season, deserve to be stripped and scourged. We trust that at no distant day, a law will be made and become powerful enough to reach cases of this kind, and the unmanly conduct severely punished.—C.

### CANADIAN MUSEUMS.

#### THE NATURAL HISTORY SOCIETY OF MONTREAL.

The collections of the above Society are generally speaking, well represented in regard to American forms. There is also a large quantity of foreign material, making altogether a very good museum, and we are pleased to say it is in a fair state of preservation at present. The collections, as a whole, are probably the oldest in the Dominion. For a number of years they were under the superintendence of a paid Curator, at that time known as a "Scientific Curator," who did very

little in regard to the arrangement of the American birds. In accordance with the advanced knowledge of nomenclature, the new system of classification should be one of the first duties that a Scientific Society had to perform. The last time we visited this institution, it was remarkable that some conspicuous foreign birds had no names attached to them; yet the Society had been paying a man during a series of years to perform this work. The Society is sustained by private subscription which has been lately reduced to Three dollars per annum for membership. The local government gives it annual aid to publish its transactions. We have no knowledge of its financial position at present, yet, we may say that this Society shows evidence of being somewhat exclusive. If its Council would like to see a good balance sheet, all they have to do is to place its library on the same foundation as a Mechanics Institute; open the Museum to the children from the various schools, say at a few cents per head. By so doing the building will always be full of inquisitive youths, who are in search of knowledge, especially regarding objects of Natural History. We would like to see the unhandled worm-eaten books on Natural History that are locked up on the shelves of some institutions made use of in the same way as in lending or church libraries. Are not books written and made to be useful? They cannot do any good while locked up against those who can pay for the privilege of reading them. The Natural History Society of Montreal has a grand opportunity of establishing a circulating library, which of itself, would be a source of strengthening its membership, and, we presume if this is done, its doors will not remain so long closed to the general public, as they have hitherto been. In conclusion, this institution must, ere long, do something in the way of claiming the attention of the public; it will have to abandon its present exclusive position, and give a chance to those who are anxious to give it reasonable support. Unless this is done a

rival Museum may offer easier facilities for instruction, and then the long-continued want of push and management will prove unfavourable to its prosperity.—C.

### THE MIGRATORY QUAIL.

This bird which has been introduced into Canada and the United States during the past few years is the "*Coturnix Communis*" of Europe, a species much smaller than our "Virginianus" or Bob White. Unlike the latter it is capable of long and sustained flight, migrating annually from its winter home in Africa, crossing the Mediteranean Sea in its course and dispersing to its breeding places throughout Europe, from whence it again returns on the approach of winter. This bird resembles our Western Quail "*Ortyx Virginianus*" very much but it is about one third smaller and the throat of the male is marked with dark brown or black from the bill downwards.

The nest is simply a depression in the ground lined with a little grass, and is usually situated in a meadow or field. The eggs 12 to 15 in number are of a pale greenish colour, blotched profusely with brown and are about the size of those of the American Robin. The female while incubating sits very close on the nest, the clatter of a mowing machine being sometimes not sufficient to cause her to leave and numerous cases have been recorded where the bird was decapitated by one of these machines rather than leave the nest.

The young birds leave the nest as soon as hatched and mature very rapidly, affording good shooting by September.

As the climate in some of the northern portions of the Dominion is too severe in winter for "Virginianus" it has been hoped that the introduction of the Migratory species would be the means of providing our sportsmen with Quail Shooting, as it seems only reasonable that these birds will migrate here as well as in Europe. During the past two years numerous birds have been liberated at St. Stephen,

N.B., Quebec City, Lachine, and other localities. Some young birds were captured at St. John during the same season those had been liberated at St. Stephen and were evidently the young of the latter as none had been liberated nearer. Several nests were also found this season at Lachine where the birds had been introduced in the spring, so there is no doubt of their breeding readily; the most important point is in regard to their returning the following season as in Europe. We believe the experiment has not yet been sufficiently tested in Canada to determine this, although it is reported some of these birds have been seen in the vicinity of Quebec, where they had been liberated the preceding season. The fact of their returning once ascertained without doubt, we have many localities affording suitable covers which would in a few years become valuable shooting grounds. Special legislation for their protection would however be required until they became sufficiently numerous, and generally distributed. Let us hope the introduction will be a success and that in a few years we will be able to number these pretty Quail with our game birds.—WALLACE.

### CANADIAN LOBSTER FISHERIES.

In the September number of this Magazine, we spoke of the thousands of Lobsters taken annually from the St. Lawrence Gulf waters of Canada for canning. When the article was written, we had no idea that lobsters were fished out along the Bay Chaleur. We anticipated the first decrease from Prince Edward Island where we are informed the catch is very large during the season. Lobster packers will have to be careful not to overdo this crustacean fishery, as the animals are differently constructed from fish, and have not the power or facility of wandering like the latter. It just comes to this, that the places where bobsters were formerly abundant cannot be so now, and will not pay because the packers, in many instances made no determined restrictions in regard to the capture of the



females, the *ova* of which were destroyed by thousands. If this system is to go on for a few years longer, the lobster canning business will be at a stand still for half a century at least, and the crustacean will become a luxury. It takes a long time to produce an adult lobster; it has to go through peculiar phases of existence before it becomes in condition to be food for mankind. These facts should not be overlooked but remembered by the men now in the business; its continuity rests with them. In the article above referred to, we mentioned that the Island of Anticosti was a good locality for lobsters, then stating that there is a lack of keen venture among the Canadian people in allowing this fishery to go to waste. We are astonished that the Americans did not place a cannery on Anticosti years ago. But now, that the crustacean has been exhausted in several places on the south coast of the Gulf, one New Brunswick firm is preparing to establish a cannery on an extensive scale on that island. So much good has therefore arisen from the influence and utility of our remarks, and it will be the aim of the CANADIAN SPORTSMAN AND NATURALIST to continue to place before the public, other matters of equal interest.—C.

#### OUR GAME.

In former numbers of this magazine, we reprinted reports of the Michigan Sportsmen's Association on the Nomenclature of a portion of our game. Additional matter on this subject was read by President Holmes at the last meeting, and we have taken the liberty to compile it to suit our Canadian Sportsmen, giving full credit to the venerable Dr. and the Committee for their report on popular and scientific nomenclature. In order to show that there is a similarity of species occurring in the Provinces of Ontario and Quebec, with those recorded from Michigan, we append certain marks to indicate their geographical range.

#### REPORT OF THE MICHIGAN SPORTSMEN'S COMMITTEE ON NOMENCLATURE.

The careful analyses of classification with reference to certain genera submitted at the

session of 1880, will, we think, sufficiently indicate the methods adopted by this committee in arriving at conclusions, "both popular and scientific." It will therefore be unnecessary to occupy your time in the enunciation of our analyses of the genera herein considered, and we will proceed at once to our task, and continue the work of making a correctly named list of game animals, by naming a portion of our water-fowl. We do not intend to make a complete list of any order or family, but to confine ourselves to such species as occur either habitually or accidentally in our State.

As belonging to the latter class we may mention the swans. There are but two species that can be considered as belonging to our *fauna*, even accidentally. These are the whistling swan, *Cygnus Americanus*,\* also called the American swan, and the Trumpeter swan, *Cygnus buccinator*.

Of the goose family there are but two genera containing species likely to be found within the borders of our commonwealth.

The goose genus, proper; all having bright or light-colored feet and bills, and white or much varied plumage, namely: White Fronted Goose, *Anser albifrons*;\* also called prairie brant, and speckled belly. This is probably identical with the white-fronted goose of Europe.

Snow goose, *Anser hyperboreus* ; † also called white brant.

Lesser Snow Goose, *Anser hyperboreus* ; † variety *albatas*. Like the snow goose, only smaller.

Blue Goose, *Anser caerulesens* ; also called bald brant.

The brant genus, proper; all having black feet and bills, and the head and neck black with white spaces, the general color of the body being gray, namely: The

Canada Brant, *Branta Canadensis* ; † also called Canada goose, gray goose, and common wild goose. This is the only goose—or properly speaking—brant, that is common to Michigan. There is a variety, *Leucopareida*, which is not known to have occurred in this State, while the Hutchins Brant, *Branta Canadensis*,\* var. *Hutchinsii*, is quite generally distributed, and is smaller than the Canada brant.

The Brant, *Branta bernicla*, † also called brant goose, barnacle goose. There is a well defined variety of this brant, viz:

The Black Brant, *Branta bernicla*, † var. *nigricans* ; on which the black is more extensive.

Of our ducks there are three sub-families, viz., the *Anatide*, the river of fresh-water ducks; the *Fuligulionae*, the sea, or deep water, ducks, and the *Merginae*, the fish ducks.

Of our shoal-water or river ducks we will enumerate as belonging to our avi-fauna:

The Mallard, *Anas boschas*.† The male is also called the green-head, and the female the gray duck.

The Black Duck, *Anas obscurus*, † also called dusky duck, and black mallard.

The Pintail Duck, *Anas acuta*, † also called the sprigtail.

The Galdwell, *Anas streperus*,\* also called gray duck.

The Widgeon, *Anas Americana*, † also called the American widgeon, and bald-pate.

The Shoveller, *Anas clypeata*,\* also called broad-bill and spoon-bill.

The Wood-duck, *Anas sponsa*, † also called Summer duck and tree duck.

Of the teal genus we have here:

The Green-winged Teal, *Querquedula Carolinensis*. †

The Blue-winged Teal, *Querquedula discors*. †

Of the deep-water or diving ducks found more or less habitually on our waters during their migrations, we notice:

The Canvas-back Duck, *Fuligula vallisneria*. †

The Red-head Duck, *Fuligula ferina*, var. *Americana*, † also called pochard, red-headed wigeon, and rufus-necked duck.

The Blue-bill Duck; *Fuligula marila*, † also called big black head, greater scaup duck, raft duck, flocking fowl, and shuffler.

The Little-blue bill, *Fuligula affinis*; † with the same local names as are applied to the next preceeding species, with the word little prefixed.

The Ring-necked Duck, *Fuligula coloris*;\* sometimes improperly called blue-bill.

The Golden eye Duck, *Fuligula clangula*, † also called garrot.

The Iceland Golden eyed Duck, *Clangula Islandica*, † breeds in trees like the wood-duck. (Nest found in the Province of Quebec.)

The Buffle-headed Duck, *Fuligula albeola* † also called butter-ball. spirit duck, and dipper.

The Lake Huron Scoter, *Fuligula bimaculata*,\* also called American black scoter and coppernose.

Of the fish ducks we have three species viz:

The Goosander, *Mergus merganser*, † also called saw-bill.

The Red-breasted Merganser, *Mergus serrator*, † also called fish duck and sheldrake.

The Hooded Merganser, *Mergus cucullatus*, † also called saw-billed diver.

The list embraces a portion of the aquatic birds frequenting Michigan marshes and waters. If we would all cultivate the habit of observing and carefully noting novelties, anomalies and and unusual occurrences, it would add immensely to the pleasure of our recreation trips, and would give us something to think besides slaughter and a "big bag."

Your committee ask the further attention of the association for a few minutes while we review a portion of the report on nomenclature made last year, which was accepted, and the recommendations adopted, excepting that part pertaining to *Ortyx Virginianus*,\* called quail at the North, and partridge at the South. We do not propose to go into a minute description of the three birds involved in this question, as they are too well known to intelligent sportsmen to require it. But we wish to submit a few generalizations. The name quail has been applied to the *Coturnix communis* (the true quail) for ages. No one disputes its correctness. It belongs to the European bird, that has been quite largely introduced into this country within the last few years. It is equally true and undisputed that the quail, *Coturnix communis*, sometimes called "migratory" quail, is distinct from our American bird, *Ortyx Virginianus*, not only specifically but generically distinct. In habits these two birds differ as essentially as the baryard fowl from the Guinea hen. It is manifestly improper to call two entirely different birds by the same name, and as the name quail properly and indisputably belongs to *Coturnix communis*, it certainly does not belong to *Ortyx Virginianus*.

Again the name partridge as indisputably belongs to *Perdix cinerea*. (The true partridge.) No one disputes it. Now, although our *Ortyx* is nearer to *Perdix* than it was to *Coturnix*, yet it is likewise essentially different from the former. Ornithologists acknowledge it to be generically different. And as *Perdix* was christened partridge in vernacular long before *Ortyx* was known to civilized man, he is certainly entitled to the name. As before stated, it is manifestly improper to call two distinct birds by the same name. Therefore our *Ortyx* should not be called partridge.

In the light of this simple logic we see why the controversy that has been so warmly carried on for years as to whether our bird should be called a quail or a partridge, has

been so entirely unsatisfactory. The simple fact is, he should not be called either—because he is not either. The controversy has had just as much point as would a discussion of the question as to whether man should be called an ape or a baboon. He should not be called either, because he is neither.

Then what shall we call our *Ortyx*? The term Bob White has been proposed for him, and is occasionally used, but it is not euphonious, and does not seem to meet with favor. Although it is not inappropriate as applied to him, it will not suit his cousins. It would be manifestly improper to say California Bob White, the Mountain Bob White, etc. Their voices would belie the name. But the name recommended by your committee last year is not liable to any of these objections. It is euphonious, it is short, easily written and easily spoken, is appropriate to all our American birds, of what has been called the quail genus. It sounds well, and is appropriate to say the Virginia colin, the California colin, the Mountain colin, the Massena colin, etc. Then again the name *Colin* has the right of priority. It was used in probably the earliest description of our bird. It is given in both Webster's and Worcester's unabridged dictionaries as the name of our bird. Also in Chamber's Encyclopedia, and in Henry Thornton Wharton's List of British Birds, which is authoritative, we find *Ortyx Virginianus*—Virginia colin; "also in Col. Montague's Ornithological Dictionary. It seems quite important that undisputed names should be adopted for all our game, so that when they are named in our laws there will be no ambiguity about the meaning of those laws. We therefore respectfully recommend the adoption of *Colin* as the vernacular or common name of *Ortyx Virginianus*.

Marked \* Ontario † Quebec ‡ Quebec and Ontario.

## Correspondence.

### ROBINS AGAIN.

To the Editor of THE CANADIAN SPORTSMAN AND NATURALIST:—

MR. EDITOR.—In your last issue, I was surprised at the comments of the Rev. Mr. Clementi, and am sorry to see such ignorance exhibited by him, and "Hammerless Greener." The best answer to give these gentlemen, is that I allow their letters to be their own condemnation. You justly observe that there is no specific connection between the English

Robin red-breast and the American Fieldfare, or Migratory Thrush, which last had been erroneously nick-named "robin," by the Pilgrim Fathers more for a joke than a reality. The English red-breast is not much larger than a Titmouse (*Parus atricapillus*) the former having longer legs, and it is of an olive green on the back, with a brick red breast, and its eye is black, with a beautiful soft and gentle expression, that has a charm in itself. There is no "blood color" about it. The American Fieldfare arrives in Canada as the snow melts, and at this date, 1st Oct., they are migrating south. I have read many traditions, concocted by pious frauds, but until otherwise satisfactorily demonstrated, I shall consider the miracle of "picking thorns" emanating from the brain of Mr. Clementi. The American Fieldfare is not "God's bird," and has nothing to do with it. It would indeed be the height of cruelty, or more properly inhumanity, deliberately to shoot an English robin, which, in gentle confidence, hops around the door steps alike of rich and poor. When a boy, in Europe, my father and uncle always took me and my brother in Christmas week, to shoot Blackbirds, Fieldfare, Larks and such small game, to make a large pie for New Year's day. Now, as a recollection of past days, let me say, that this pie was baked in a huge round dish, twenty inches across the bottom and eight or nine deep. At the bottom was placed a hare or pair of rabbits, then, four pheasants, and four partridges and the rest of the space filled in with small birds. With boyish pride, we recounted how many splendid shots we had made at sitting birds; that such a Blackbird was killed at 50 or 60 yards, and so on. But Fieldfares and Larks were our staple game. Then, all the young folks of the neighbouring gentry were invited for the New Year's pie, and I assure you, it was discussed as little ladies and gentlemen, of from eight to fourteen could, and we did it justice. I will never forget that on one occasion I fired at a flock of sparrows and other small birds, in the barn yard, and killed about a dozen. My uncle helped me to pick up the wounded, and found a red-breast I had unfortunately killed with the rest. He would accept no excuse for such a crime. No use pleading, I did not see it, or I would not have fired. The poor robin was killed. That was enough. I got my ears well cuffed, and was sent to the library for the rest of the day, for my careless conduct, and he ordered me to learn the first ten lines of Sallust by rote, beginning with "*Omnes Animalia*," and I had



to do it. Notwithstanding the sentimentalism of the Rev. Mr. Clementi, Mr. Saunders, President of the Entomological Society of Ontario, stated in his last annual address to that learned body, that robins were one of the most mischievous of our birds, and I assure you the piety and extreme humanity of such correspondents will not weigh with me about relishing Fieldfares. In all the leading hotels in all the large cities of the United States, "robins" are to be found on the bill of fare. Do they know that 25,000 dozens of birds, mostly Red-wing Blackbirds, Rusty Grackles and Bobolinks, were sold last year in Philadelphia alone at 75 cts. to \$1.00 per dozen, all under the name of "Rice-birds." Robins and Meadow larks were not included, though thousands were also sold. I would advise the Rev. Mr. Clementi to make a tour in the United States to lecture on the cruelty of eating robins, *God's birds*. I hope to read no more of these strictures as it might perhaps add vim to my pen. Do they think they have written me down? In regard to the tradition of the robin picking a thorn out of Christ's head, I consider Mr. Clementi the pious composer. Again if the English robin had its breast dyed by our Saviour's blood, it is surely neither an unreasonable nor irreligious idea, to expect the dyed feathers to be a blood color which they are not, and if a miracle had been performed it would have been true to the color of blood and not blotched, or, if true to color, then His blood was like no other mortals. How does the truth of this tradition tally with fact and colour? Will Mr. Clementi explain, as Robin red-breasts are neither found in the Holy land, nor is it mentioned in the Bible as far as I am yet aware?

JOHN H. GARNIER.

Lucknow, Oct. 1st, 1881.

#### DEER HORNS.

SIR,—I wish to ask yourself or readers of the NATURALIST the reason that on a two year old buck, one horn has grown about five inches, and the other only shows above the hair. I have a buck and doe, and this is the way his horns have grown. The doe is last Spring's fawn; large for its age. Both are very tame, eating readily from my hand. Forty Dollars will buy the pair.

Yours,

Gravenhurst, Ont.

R. B. SCRIVEN.

NOTE.—We cannot positively say what is the cause preventing the growth of the second horn of your deer. It may be that the skin

covering the tips of the horn was injured when it started to grow, thus stopping the circulation of the vital fluid passing under it. The horns carry the skin from the base until they are full size, and while the thin skin is attached to the them the horns are soft and easily injured. We have seen many bearing marks of injury received while they were covered with the velvet skin.—C.

#### A GENERAL DELUGE.

BY G. W. BROWN, M.D.

(From *Our Home, and Science Gossip*.)

The gases continually escaping from the interior of the earth, bringing along with them a vast amount of scoræ, through the immense volcanic craters of an earlier period, reduced the amount of molten mass within, and unfitted it longer to sustain the heavy crust resting upon it. After rocking, heaving and swelling for a time, like a ship on a billowy sea, fissures were formed, the compressed gases escaped, the crust fell down upon the fiery mass, leaving the Andes, Rocky, Himalaya and other great mountain chains to mark the site of these magnificent operations of nature. Tranquility followed for a time when lesser disturbances ensued. The-e violent agitations of the crust of the earth everywhere ruptured the inflexible rock, sometimes leaving wide spaces into which were injected the molten mass from below, forming the perpendicular veins of metamorphic rock, the admiration of all who look upon it.

With the subsidence of a continent, beds of oceans were elevated, and the waters, in seeking their equilibrium, swept over receding continents, perhaps engulfing them until another great upheaval followed. Amid these awful paroxysms of a convulsed earth, the principal inhabitants were swept away. The few survivors, with no historic records, communicated from generation to generation, in their rude language, as clearly as they were capable, an account of these wonderful and startling operations of nature. Wherever survivors remained each had a vivid recollection of the grand cataclysm, and imparted his impressions of it to his successors, and thus on from parent to son through all the ages.

The present eastern coast of Asia may have been the western coast line of a submerged continent. The Adam and Eve of Hindoo, Assyrian and Hebrew story may have been the only survivors of some of these grand

operations of a convulsed globe in some locality, while Noah and his family may have been the remnants saved in another. Or each may have been survivors of widely separated occurrences to which we have referred.

A portion of the inhabitants may have been saved by boats, corroborating the traditional account of the aborigines of America, as well as the mythical and sacred books of different nations.\*

This view of the subject best explains the difference of species of animals, living representatives of which have been long extinct, their bones however, frequently found deep in the earth. By some of the swells of the ocean, during these paroxysms, a whole continent would be swept over, and thus the Bible expression, "all the fountains of the great deep were broken up," is as correct as expressive.

The American continent, with its pre-historic mounds, the products of an ancient and long extinct race, may have been swept away by some of these gigantic ocean waves, when the waters were seeking their level, though the continent itself was not permanently submerged. A few inhabitants may have escaped, who chanced to be on mountain tops. They were the progenitors of the red man, found here by our European ancestors. As the water receded to its former bed, with the return wave, and rested but a short period on the surface, the general face of the country, save as regards vegetable and animal life, was but little disturbed. If this tidal wave swept from the southeast to the north west, we can account for the treeless prairies, all verdure being destroyed, followed on the subsidence of the flood by grasses which were the readiest to take root, the seeds of the forest being less tenacious of life were destroyed with the parent tree.

It is not probable all the continents and islands were submerged, nor all upheaved at the same epoch. Were such a catastrophe to again visit our earth, which is not at all improbable, because of the molten mass still reposing in its bosom, the western coasts of the Ameri-

can continent might be depressed below the sea level. The Pacific would soon establish an equilibrium. The large amount of water required would denude other portions. Possibly Australia, with the thousand islands of the eastern archipelago, would rise into the dignity of a continent with hills and vales, and inland seas. Dense forests of verdure, abounding with animal life would soon complete the beautiful picture, and give us the realization of a new continent, rising from the sea, like Venus in classic story.

Cosmogonists have been too much in the habit of predicating their ideas of creation on the accounts found in their "sacred books." Instead of entering the great field of inquiry, reading the rock-records "engraved by the finger of God," and making proper deductions therefrom, thinking and writing for themselves, and building up a science conformable to the teachings of Nature—which cannot misrepresent,—they have been content to borrow the narrow theory of some person who lived in the deep past, whose ideas were drawn from an uncultured fountain, and who had not sufficient data on which to establish any great scientific truth.

The human mind was no more content to remain inactive four thousand years ago than now. The people then found the earth substantially as we see it to-day, and peopled as it is with inhabitants. Reason taught them that all this had a beginning. The easiest way to explain to the ignorant masses, orally taught by the better-cultured priests, and quite as satisfactory to an uncultured population, was the story originally copied from the Babylonian records, transcripts of which were found by Layard in the ruins of Ninevah, where they had been concealed for more than 3,000 years by the sands of the desert. Our writers, conscious of the deep-rooted attachment of the populace to their sacred books, have labored to educate the common mind, by harmonizing their knowledge with prejudiced public opinion on this subject. This should not be. The time has come when the Truth should be taught, and if Error suffers it is not the fault of the truthful teacher, but of him who taught the original error.

Our world is older than even scientific thinkers have generally supposed. These thinkers found the earth as it is, and were ready to take for granted that its population, with man and the lower forms of life, began with the present order of things.

(TO BE CONTINUED.)

\* NOTE:—Classical writers inform us that Deucalion reigned over a part of Thessaly. In his age, say they, some 1,500 years before our era, the whole earth was overwhelmed with a deluge. The impiety of mankind had irritated Jupiter, who resolved to destroy the race. Immediately the whole earth exhibited a boundless sea. The highest mountains were climbed by the frightened inhabitants, to escape the rising waters. This seeming security was soon overtopped by the swelling flood, and no hope was left of escaping the universal calamity. Prometheus advised his son, Deucalion, to make himself a ship, which he did, and by this means escaped with his wife the general disaster. The pigeon and olive branch play their part in this as in all other narratives of the kind, showing a universal paternity somewhere.

# THE CANADIAN SPORTSMAN AND NATURALIST.

No. II.

MONTREAL, NOVEMBER 15th, 1881.

VOL. I.

## TO SUBSCRIBERS.

We are anxious to have our accounts squared up by the end of the year, therefore, gentlemen who have not paid for the magazine would confer a favor by remitting ONE DOLLAR to us before the 1st of December.

## THE VENISON SEASON.

There must be some alteration in the time to hunt deer, and the necessity for the change is obvious from the late long continued fine weather, which, we may say, lasted throughout the months of September and October. At present the law says that all species of deer may be hunted from the 1st of September to the 1st of February, in the Province of Quebec, so that actually two months of the present legal season is of no value to the sportsman, and we may risk making no mistake in saying that for years to come but few deer will be obtained in the month of September at least, either in the accessible woodlands of Ontario or Quebec. The animals can certainly be obtained by going far back, but what can be done with venison after it is carried a great distance in such a temperature? It would be simply unfit for human food. We must, therefore, frame our Game Laws to suit the climate and rutting season, and it would be greatly to the advantage of sportsmen and the deer to commence the open season on the 1st of October, and close on the 15th of February. We throw out these remarks that gentlemen who are interested in the sport may study the subject and give us their opinions. We are not anxious to do things rashly, but it is evident that as the woodlands are annually opened, that the climate during the two months mentioned, will continue to increase in mildness, keeping the animals far back, and, therefore, not so accessible as in former seasons.—C.

## EXPOSE THEM.

A few Americans have leased the Swanton Marshes on Lake Champlain, and have called themselves "The Maldon Game Club, of Mass." We have been informed that members of this Club have lately set numbers of muskrat traps on the sand-bars in order to catch the Black duck going there to rest. The discovery was made by a party who watched the gents searching for the traps which were hidden beneath the sand washed by the waves. We are also told that members of the above Club go into the marshes with dogs to procure young ducks before they are able to fly. The sporting men of Vermont—those who love fair play to game animals—should watch these gentry and make an *expose* of a few of them. If such tricks were played in a civilized Canadian community, the guilty parties would certainly be arrested and sent to jail to convert stones into pebbles.—C.

## CANADIAN MUSEUMS.

### THE LAVAL UNIVERSITY, QUEBEC.

This well-known educational institution has, without doubt, better facilities for exhibiting the *fauna* and *flora* of North America than any similar one in the Dominion. The room devoted to the zoological collections is large, and well-lighted from the west side of the building, and the cases containing the Ornithological collection are erected after modern patterns, spacious, standing transversely on the floor, each case having two windows to light its contents. We may safely say that the Museum of the Laval University of Quebec, in course of time will equal that of the Academy of Natural Science of Philadelphia.

Some years ago the Council voted a sum of money to procure preserved skins of the birds of Southern and Western America, and the



Rev. Mr. Brunet, then Professor of Botany, and the writer were sent to Washington to make arrangements with the Smithsonian Institution for the purchase of such a collection. This was arranged with Dr. Baird, and a number of specimens were afterwards received, but we have no knowledge that material was regularly forwarded in accordance with the Catalogue contract. However, with what the University now possesses in this Department and its collection of Birds' Eggs, with a fair representation of the Orders of Canadian Insects, students can pass their leisure profitably in the room. In an adjoining room will be found Dr. Taché's collection of Ethnological forms, which are very interesting as exhibiting the modes of life and early history of the Indian tribes of Canada. The indefatigable exertions of the late Rev. Mr. Brunet made the Botanical collection the best in the Dominion; in fact, it is now a reference of no mean order. The arrangement of plants are in accordance with modern classification and nomenclature, and the genera and specific names properly and intelligently placed. If the present Professor will only watch over the Herbarium as our late esteemed friend Brunet did, then it will exist to be useful for generations to come. We may add that the University possesses a magnificent collection of philosophical apparatus which are not, probably, equalled on this continent. The authorities had, from the beginning, an eye to matters of this nature as an intelligent means of advancing the knowledge of young men entering their classes, and, indeed, similar institutions in this country should endeavor to imitate Laval, and procure material of like nature, in order to keep pace with this advanced age of enquiry and thought.

#### THE BETSIAMITES MUSEUM.

On the North-shore of the Lower St. Lawrence, almost opposite Father Point, a large, good salmon river, called Betsiamites, enters salt water. It is about ninety miles below Tadousac and two hundred from Quebec. The

Hudson Bay Co. occupy a post here, to trade with the Indians who generally reside near the river, as they claim it by right. There is also a Moravian Missionary residence, where the Gospel is propagated among the tribe. Through the influence and energy of these clergymen a Museum of Natural History objects has been erected—the collection being kept in a separate building. We wish to speak of this collection in order to show what can be performed by determined exertion. Here then, we say, that on the North Coast of the Lower St. Lawrence, in a place, to a great extent, only frequented by Indians, the devoted missionaries have erected a Museum to educate the savage. We were astonished when we visited it, as we did not expect to see such things on the verge of the Labradorian coast. But we know what these missionaries mean by this exhibition, and the result of forming a collection of Natural objects before the semi-savage eye is a grand idea, brim-full of good results. The collection is extremely good, being the product of amateurs. There are quite a number of specimens from France. We believe this is the first English notice given of the above collection.—C.

#### OTTAWA FIELD NATURALISTS' CLUB.

We have before us Transactions Nos. 1 and 2 of the above named Club, from 1879 to 1881. An institution of this nature was wanted in the City of Ottawa, the surroundings of which are prolific in objects of scientific research. We are cognizant of the valuable paleontological work done by the late Mr. Billings in the Ottawa Valley, and furthermore mention, with pleasure, that there are other Billings' following his footsteps. These facts should stimulate the closet naturalists connected with the Geological Survey to go to work for undiscovered material; it would certainly be creditable to the discoverers, and add laurels to the Department. It appears, however, that it is not the way in which these learned gentlemen wish to obtain honour. We believe that many

of the forms obtained from our rocks have been identified by American paleontologists. The State collections of New York and Massachusetts have to be consulted in order to place the matter correctly before the Canadian public. Of course this must be expected from persons having only a limited knowledge of abstruse forms found occasionally in our rocks. The Ottawa F. N. Club have now the Geological Survey Museum to consult, and with students like J. A. Grant, M.D., F.R.C.S., Edin., F.G.S., London; the Billings'; W. P. Anderson, C.E.; W. H. Harrington, and others working in the fossil valley of the Ottawa, will, we trust, add a fresh stimulus to geological study, and compel the salaried gentlemen who write on these *remarkable* things to be diligent and thoroughly accurate regarding them. The Transactions of the O. F. N. C. are extremely valuable, and they will, doubtless, continue to be so as long as the Club is presided over by a student like our congenial friend J. Fletcher. Mr. G. E. Heron, a young conchologist, gives a very good paper and list of the Land and Fresh-water shells of the Ottawa. Mr. W. H. Harrington's papers on Insects are valuable to the young beginner. We would like to see the authorities given in all cases after species. At page 44, No. 1, occurs *Polydrosus elegans* of Couper, which is correct according to LeConte's Catalogue; and at page 33, No. 2, the latter Weevil is called *Scythropus elegans*, Couper, from Crotch's Catalogue or Check-list. We care not who authorized the revision, but simply say that the genus *Polydrosus* should hold priority. At page 31, No. 2, a Weevil is mentioned as *Hylobius stupidus*, and on referring to the list (page 33) it is given as Schœner's species. We have no knowledge of this insect, and never met it under the name of *stupidus* in Canadian collections. There has only been two or three species of the genus *Hylobius* found in Canada, the last one was described some years ago as *H. pinicola*, Couper. It was prior to that a M.S. species called *heros* by LeConte, a gentleman who

stands at the head of all American Coleopterists. We are sorry to say that there are too many writers in the United States, who are fond of making changes of this description, and if Crotch gives this *Hylobius* as *stupidus*, Sch., we would like to examine a specimen. It is strange that the latter species should lie dormant so long when men like Billings and the writer collected together for three years around Ottawa. Ibbotson, Croft and the writer for several years around Toronto, and that *H. pinicola* was discovered in two distant places, i.e., Lake Superior, where Dr. LeConte found fragments of one which formed the MS. for his *heros*, and the others were living specimens taken on pine trees at Quebec by the writer, and described by him in the *Canadian Naturalist & Geologist*, published at Montreal, either in 1865 or '66. We are pleased to notice Mr. Fletcher's "Flora Ottawaensis" in the first number, with an addition to it in the second. We know that the late Mr. Billings published a local list of plants in the Transactions of the Literary and Scientific Society of Ottawa. In closing, we will here notice a descriptive paper on the genus *LILIUM*, by our old friend Lt.-Col. White, an associate, who is always willing to aid literary institutions. In all, we commend the Transactions of the O. F. N. C. to all those who take an interest in the Natural History of Canada.—C.

## Correspondence.

### "LEGEND OF THE CROSSBILL."

To the Editor of THE CANADIAN SPORTSMAN AND NATURALIST:—

SIR,—I notice considerable correspondence appearing in your columns on the Robin. I am a student of ornithology, therefore, I would like to say a few words on the subject. I consider Dr. Garnier is justified in shooting *Turdus migratorius* in the autumn and winter seasons, as, during that time, they are very good eating. I have enjoyed the winter sport, shooting Blackbirds, Thrushes, Larks, Redwings and Fieldfares in England, and can vouch for the good pie they make. The Rev. Mr. Clementi

is evidently astray in regard to the tradition of the Robin picking a thorn out of Christ's head. Perhaps he confounds the Robin with the "Legend of the Crossbill," from the German of Julius Mosen, translated by Longfellow, as follows:—

On the cross the dying Saviour,  
Heavenward lifts His eyelids calm,  
Feels, but scarcely feels, a trembling  
In His pierced and bleeding palm.

And, by all the world forsaken,  
Sees He how with zealous care,  
At the ruthless nail of iron,  
A little bird is striving there.

Stained with blood and never tiring,  
With its beak it doth not cease,  
From the cross 'twould free the Saviour,  
Its Creator's Son release.

And the Saviour speaks in mildness :  
"Blest be thou of all the good !  
Bear, as token of this moment,  
Marks of blood and holyrood !"

And that bird is called the "Crossbill,"  
Covered all with blood so clear ;  
In the groves of pine it singeth  
Songs, like legends, strange to hear.

Scientific examination condemns *Turdus migratorius*, or Robin, for destroying a much larger number of useful than destructive insects, therefore, it does more harm than good to mankind.—TEAL.

Montreal, Oct. 24, 1881.

### CANADIAN BIRDS.

List of Birds obtained and observed by Professor Macoun at and near the City of Belleville, County of Hastings, Ontario, in the Spring of A.D. 1881, with remarks by Professor J. T. Bell, of Albert University.

The date given with each species is that on which the first specimen was captured. Several individuals of many of the species were subsequently shot, of which no mention is made in this list. The names are taken from "Jordan's Manual of the Vertebrates of the Northern United States," Jansen, McClurg & Co., Chicago, 1880.

- 1.—Jan'y 17.—*Plectrophanes nivalis*; Snow Bunting. Very numerous before snow-storms.
- 2.— " 18.—*Picus pubescens*; Downy Woodpecker.
- 3.— " 29.—*Scops asio*; Screech Owl.
- 4.—Feb'y 7.—*Agelaius linarius*; Red-poll Linnet.
- 5.— " 7.—*Pinicola enucleator*; Pine Grosbeak.
- 6.— " 11.—*Picus villosus*; Hairy Woodpecker.
- 7.— " 11.—*Cyanura cristata*; Blue Jay.
- 8.— " 23.—*Loxia curvirostris*; Red Cross-bill. Prof. Macoun saw a flock of these birds, but did not succeed in procuring specimens.
- 9.— " 23.—*Eremophila alpestris*; Shore Lark. Bred near city; young nearly fledged by May 1st.

- 10.—Mar. 1.—*Nyctale Acadia*; Saw-whet Owl.
- 11.— " 4.—*Corvus Americanus*; Common Crow arrived.
- 12.— " 18.—*Turdus migratorius*; Robin. In March and April the stomach of Robins contain numerous larva of the carnivorous ground beetles (*HARPALES*, *CARABIDÆ*).
- 13.— " 25.—*Sialia sialis*; Blue-bird.
- 14.— " 28.—*Lanius borealis*; (*Collyrio* Vigors) Great Northern Shrike. Prof. Jordan has restored the old Linnæan name *Lanius* in his later edition. The bird now winters here, and feeds chiefly on the English Sparrow; this indicates that the migration of birds, and probably of other animals, is influenced more by food than by temperature.
- 15.— " 29.—*Melospiza melodia*; Song Sparrow.
- 16.— " 29.—*Anorthura vogelodytes*; Winter Wren.
- 17.—April 15.—*Quiscalus purpureus*; Crow Blackbird.
- 18.— " 15.—*Passer domesticus*; English Sparrow. Is spreading into the country; was observed building in a Lombardy poplar remote from the city.
- 19.— " 15.—*Poæetes gramineus*; Bay-winged Bunting, Grass-bird.
- 20.— " 16.—*Accipiter Cooperi*; Chicken Hawk.
- 21.— " 16.—*Molothrus ater*; Cow Bunting.
- 22.— " 16.—*Agelaius phœniceus*; Red-winged Black-bird.
- 23.— " 18.—*Sayornis fuscus*; Phœbe Bird.
- 24.— " 18.—*Junco hyemalis*; Snow-bird.
- 25.— " 18.—*Sitta Carolinensis*; White-bellied Nuthatch.
- 26.— " 18.—*Parus atricapillus*; Black-capped Chickadee.
- 27.— " 20.—*Hylocichla Pallasi*; Hermit Thrush.
- 28.— " 20.—*Sphyrapicus varius*; Yellow-bellied Woodpecker.
- 29.— " 20.—*Passerella iliaca*; Fox Sparrow. Very rare here.
- 30.— " 21.—*Colaptes auratus*; Golden-winged Woodpecker. Local name, "High-holder."
- 31.— " 22.—*Regulus satrapa*; Golden-crowned Kinglet.
- 32.— " 22.—*Agilailis vociferus*; Kill-deer Plover.
- 33.— " 22.—*Tachycineta bicolor*; White-bellied Swallow.
- 34.— " 23.—*Regulus calendula*; Ruby-crowned Kinglet.
- 35.— " 23.—*Certhia familiaris*; Brown Creeper.
- 36.— " 23.—*Sturnella magna*; Meadow Lark.
- 37.— " 25.—*Spizella monticola*; Tree Sparrow.
- 38.— " 25.—*Spizella socialis*; Chipping Sparrow.
- 39.— " 26.—*Spizella pusilla*; Field Sparrow.
- 40.— " 26.—*Zonotrichia albicollis*; White-throated Sparrow.
- 41.— " 27.—*Passerculus Savanna*; Savanna Sparrow.
- 42.— " 28.—*Carduelis purpureus*; Purple Finch.
- 43.— " 29.—*Mniotilta varia*; Black and white Creeper.
- 44.—May 2.—*Harporhynchus rufus*; Brown Thrush.
- 45.— " 3.—*Pipilo erythrophthalmus*; Towhee Bunting.
- 46.— " 4.—*Empidonax Acadicus*; Small green-crested Fly-catcher.
- 47.— " 5.—*Myiarchus cinerascens*; Great-crested Fly-catcher.
- 48.— " 5.—*Setophaga ruticilla*; American Redstart.
- 49.— " 6.—*Lanius ludovicianus*; Loggerhead Shrike.
- 50.— " 6.—*Geothlypis Carolinensis*; Cat-bird.
- 51.— " 6.—*Sitta Canadensis*; Red-bellied Nuthatch.
- 52.— " 6.—*Sturnus nevius*; Water Thrush.
- 53.— " 6.—*Amphisp cedrorum*; Cedar-bird.
- 54.— " 7.—*Tyrannus Carolinensis*; King-bird.
- 55.— " 9.—*Dendroica aestiva*; Golden Warbler.
- 56.— " 9.—*Dendroica coronata*; Yellow-rumped Warbler.
- 57.— " 9.—*Zonotrichia leucophrys*; White-crowned Sparrow.
- 58.— " 9.—*Chrysomitris tristis*; Yellow-bird.



- 59.—May 9.—*Hirundo horreorum*; Barn Swallow.  
 60.—" 9.—*Icterus Baltimore*; Baltimore Oriole.  
 (Local, Bee-bird.)  
 61.—" 9.—*Tringoides macularis*; Spotted Sand-  
 piper.  
 62.—" 10.—*Vireosylva gilva*; Warbling Vireo.  
 63.—" 10.—*Dendroica caerulescens*; Black-throated  
 Blue Warbler.  
 64.—" 10.—*Hylocichla fuscescens*; Tawny Thrush.  
 65.—" 12.—*Geothlypis trichas*; Maryland Yellow-  
 throat.  
 66.—" 12.—*Troglodytes aedon*; House Wren.  
 67.—" 13.—*Siurus auricapillus*; Golden-crowned  
 Thrush.  
 68.—" 13.—*Empidonax trailii*; Trail's Fly-catcher.  
 69.—" 13.—*Coccyzus erythrophthalmus*; Black-billed  
 Cuckoo.  
 70.—" 13.—*Melanerpes erythrocephalus*; Red-headed  
 Woodpecker.  
 71.—" 13.—*Myiodytes Canadensis*; Canada Fly-  
 catching Warbler.  
 72.—" 16.—*Dendroica maculosa*; Black-and-yellow  
 Warbler.  
 73.—" 17.—*Dendroica Pennsylvanica*; Chestnut-sided  
 Warbler.  
 74.—" 17.—*Pyrranga rubra*; Scarlet Tanager. (Local,  
 Fire-bird.)  
 75.—" 17.—*Goniaphea ludoviciana*; Rose-breasted  
 Grosbeak.

At this date Professor Macoun was called away to other duties and ceased collecting in the vicinity of Belleville. Shortly afterwards he set out on another exploring expedition to the North-West, returning home on October 14th, when he commenced his Fall collecting, the result of which, as well as of his Northern explorations, will be made known hereafter.

Professor Macoun retains mounted specimens of all the above named birds, except the Crow and Crossbill; but in future he intends to adopt the plan suggested to him by His Excellency the Governor-General, viz., to have the skins of his captures simply filled, without wiring or setting up, so that they can be kept in boxes or in drawers of a cabinet, thus economizing both time, space and money, with the additional advantage of having them in a more accessible form for examination and comparison.

NOTE.—The Red Crossbill is the *Curvirostra Americana* of Wilson. The genus *LOXTA* is not applied to our Crossbills by the best American ornithological authors. Jordan's Manual is, evidently, a mixture of European and American genera. It would be safer and more correct if our correspondent followed the Smithsonian Ornithological Catalogue. Jordan places our Pine Grosbeak under the European list, while it was originally described by Cabanis as *Canadensis*, its habitat being more North American than British. Again the Shore Lark or Sky Lark of America is called

*alpestris*, from the European list, while our bird is the *E. cornuta*. Boie. This species has been found nesting on the Island of Montreal. With regard to the Great Northern Shrike, it is, at this age, absurd to go back to the Linnæan nomenclature, especially for genera. We have not seen Professor Jordan's Manual, but suffice to say that Dr. Baird, of the Smithsonian Institution, years ago classified the four North American Shrikes under the genus *COLLYRIO*. The faunal and floral nomenclature of the above Institution is, therefore, supposed to be that in use throughout the United States and Canada. Pallas' Thrush is a true *Turdus*, and the White-bellied Swallow a *Hirundo*. Wilson's Thrush is placed under a genus not recognizable on this continent. Indeed, we are sorry that our correspondent did not append the authorities for such species. The latter is a true *Turdus*. The Rose-breasted Grosbeak is not a *Goniaphea*, but a fair type of the genus *Guiraca*, of Swainson. There are other errors which could be pointed out to Professor Jordan, but we trust our esteemed Belleville friend will look on the above remarks as emanating from a love of system which should certainly be carried out.

We know further that American entomological writers catalogued insects occurring between Mexico and the Arctic zone, placing therein, at intervals, forms either British or foreign, that never occurred on this continent.

We may here state, in connection with the early appearance of the Snowy Owl, that Mr. N. A. Comeau, of Godbont, Lower St. Lawrence, shot a fine specimen of the latter on the 12th October, and he says "it is somewhat early comparatively." About this date several specimens were offered on the Montreal market. What causes this bird, so well clothed in soft, immaculate down—and so thoroughly lagopede—perfectly formed for Arctic regions, to appear in our temperate climate during the fall of the year? It is not cold that moves it from its summer haunts, because it can stand the lowest Arctic temperature. The Snowy

Owl must live, and its food being principally *Rodentia*, which are, in the Northern regions, thoroughly covered with snow in October, cannot be obtained by the birds, and they are, therefore, compelled to fly southward, where they can obtain an existence with greater facility. We have many beautiful illustrations of this nature in America, where animals move within frigid and temperate zones. We find birds visiting us in winter, which during summer have their habitat on the South margin of the Arctic circle. Among these we may mention the Jer Falcon (*F. Candicans*, Gmelin); the Great Gray Owl (*S. Cinereum*, Audubon); the Sparrow Owl, (*Nyctale Richardsonii*, Bon); the Snowy Owl (*Nyctea nivea*, Gray); the Hawk Owl (*S. ulula*, Bon); the Three-toed Woodpeckers; the Waxwing (*Ampelis garrulus*, Linn); the Hudsonian Titmouse (*Parus Hudsonius*, Forster); the CURVIROSTÆ (Crossbills) and AEGIOTHIDÆ (Redpolls); the Snow Bunting *Plectrophanes nivalis*, Meyer); the Pine Grosbeak (*Pinicola Canadensis*, Cab); the Canada Jay (*Perisoreus Canadensis*, Bon); the Sharp-tailed Grouse (*Pediceetes phasianellus*, Baird); the Ptarmigan and some of the ANATIDÆ (Ducks) and STERCORARIIDÆ (Skuas). The writer came to Canada in 1842, and has, since then, watched the gradual changes occurring in its winter temperature. There is an appreciative difference between the Canadian winter of 1843 and those that have followed. Remarks on the meteorological changes are not required from weather prophets, as they have been noticed by Europeans visiting Canada of late years, and as our Northern woodlands are annually opened up and the lands thoroughly cultivated, the result will be doubly manifest to the young communities of this portion of the earth.—C.

#### CAN THE CAPERCAILZIE AND BLACK COCK BE ACCLIMATIZED IN CANADA?

The following was sent to us by our esteemed friend J. M. LeMoine. He says that Col. Rhodes lately imported two hundred Messina

quail. It would be worth the money and trouble to introduce the Capercailzie into Canadian forests, but we have doubts regarding the Black Cock, its habits being different from the Capercailzie; however the subject is interesting, and we trust our rich sportsmen will not overlook it.—C.

To J. M. LEMOINE, Esq., President Literary and Historical Society, Quebec.

DEAR SIR,—As President of a Society owning an extensive collection of birds as well as on account of the efforts you have made to increase and protect the game of Canada and to popularize the study of Natural History, I beg to draw your attention to the splendid specimens of the English pheasant, black cock and capercailzie, which I now send to your rooms for exhibition. You are no doubt aware that the capercailzie is a northern specie, a denizen of Norway, living on the top of pines and spruce as lofty as our own; you are no doubt also cognizant of this fact that the Duke of Sutherland and the Earl of Fyfe have succeeded in adding to the Scotch fauna, the magnificent birds, which are now re-introduced and breed abundantly in Scotland. Will no sportsman take the lead in a movement to introduce this bird and naturalize him in Canada? Awaiting for an expression of your views,

I remain, dear Sir,

Yours respectfully,

A. WATTERS.

Quebec, 4th November, 1881.

ROOMS OF THE LITERARY AND HISTORICAL SOCIETY.

Quebec, 4th November, 1881.

To MR. A. WATTERS, Quebec:—

DEAR SIR,—I have pleasure in acknowledging the receipt of your letter of this date, advising me that you have sent on exhibition to our rooms, some remarkable handsome English pheasants—black cock and capercailzie, as specimens of the art of Scotch taxidermists, and asking my opinion as to the practicability of adding to our fauna, the splendid game bird, known as the capercailzie. It is now some time since I pressed this very subject on the attention of some of my sporting friends. The efforts of Col. Rhodes to introduce here the European house sparrow, show what energy and hard cash can do, and I trust the same success will attend the Colonel's praiseworthy

efforts and expenditure, to add the Messina quail to our Canadian moors and forests. I have a dozen of the Colonel's Sicilian quail, at present in my aviary, the breeding season being over when I got them, and am waiting for April to let them loose, in order to test Col. Rhodes' theory about this migratory species' return to where it was hatched. The capercailzie, without being as delicate a bird to eat, as our ruffed grouse, from its size, would be a very welcome addition to our fauna. In Canada, he would find a climate, haunts, food and protection, similar to which he meets with in the pine forests of the north—in Norway—it is worth while trying, if he can be naturalized here. I hope yet to learn that some public-spirited sportsman will undertake the introduction of this noble bird—the capercailzie—and succeed here, as has happened in Scotland.

I remain, dear Sir,

Yours most obediently,

J. M. LEMOINE,

President Lit. & His. Society.

#### BAY OF QUINTE NOTES.

Owing to the unprecedented dryness of the weather in September the shooting season in this district opened under very unfavorable auspices. The Woodcock was driven out of his usual haunts, and compelled to take refuge in the inaccessible recesses of our marshes, and though some of our sportsmen tried the well-known covers, they met with but poor success, the best bag I have heard of consisting of no more than six birds. Some sport has been had within and close to the city limits among the Golden Plover, but no heavy bags have been made. Very few Partridge have been shot as yet, the foliage is too dense for the shooter; after the leaves have fallen we hope to have some sport, as the breeding season was favorable.

The Fall ducks are beginning to arrive; the frosty nights of the 5th and 11th October have started them on their Southward journey, and they have begun to appear on our market, to the great satisfaction of the gourmands. Hay-bay, an offshoot of the Bay of Quinte, about midway between Belleville and Kingston, used to be a celebrated resort for duck-shooters, but of late years the birds have been almost entirely driven away by incessant and indiscriminate cannonading. It is now, however, under the protection of an association of neighboring sportsmen, who only allow shooting on three days in the week, and who, I am

informed, charge one dollar a-day for the privilege—a sum which no true sportsman would object to pay for a fair day's sport.

The fishing in the Bay, though inferior to that of last year, has yet afforded some good "takes" to the devotees of the rod and line. Among others, Mr. Wm. Orwin has had good sport among the Black Bass. On one occasion he and his son killed 95lbs. of Bass in an afternoon. On another they took 75 fish, weighing considerably over 100 lbs., and on the 11th October they took, at Nigger Island, half way between this and Trenton, 103 lbs. of Black Bass. His usual bait is a grass-hopper, but as the insect is rarely to be had now, his latter fishing has been done with an artificial fly, tied to resemble that tempting bait. Mr. Orwin reported some heavy flocks of duck coming in while he was fishing.

A well-known veteran angler, Mr. Alphens Dulmage, paid a visit to Squire's Creek, in the Township of Rawdon, 25 miles from Belleville, on the 12th September, and in eight hours, took 70 Speckled Trout, one of which weighed close upon 2½ lbs., and another turned the scale at 1½ lbs. These fish were mostly killed with the worm, but, fishing by moonlight, the trout refused the worm bait, which was freely taken by the Chub, which also inhabit the creek. By way of experiment Mr. Dulmage cut up a Chub and baited his hook with pieces of its flesh, and with this bait caught several nice trout.

The bush-fires which devastated a large section of the middle district of Hastings County during the hot, dry weather of summer, made sad havoc among the game and wild animals within their sway. The lumberers report the finding of many remains of Deer, Partridges, and other animals in the burnt woods. In the Township of Grimsthorpe, a fire swept through six miles of forest in twenty-four hours. One of Messrs. Rathbun's foremen, following the track of the conflagration to look for such timber trees as were spared, found a Porcupine with all its legs burnt off and still living, and, a little further on, another with its head and shoulders singed bare, and its eyes put out by the flames; he put them out of pain with his hatchet.

The fires of this year, having run through many of the thick swamps which, in ordinary seasons, are incombustible on account of their moist condition, have driven many Bears, Wolves, &c., out of their strongholds, and they have, consequently made their appearance in



very unusual places, and alarmed the inhabitants of isolated dwellings. Several of them have, however, fallen before the rifles of the hunters, who are always ready to turn out in pursuit when large game are reported to show themselves. The regular hunting is scarcely begun as yet, but those who have taken "time by the forelock" have had pretty good success, in proof of which I send you the following, clipped from the Belleville *Intelligencer*, of the 12th ult. :—

"A BIG DEER HUNT.—A party of seven left for Buck Lake, Sept. 28th, arriving at their destination October 1st. They returned on October 10th, bringing with them 15 deer besides a large quantity of smaller game. Of the deer shot Mr. S. Paliser, of Foxboro', shot seven; Mr. S. Golding, of Sidney, six; and Mr. S. D. Ross, of Madoc, two."

JAS. T. BELL.

NOTE—The above was too late for the October number.

#### A GENERAL DELUGE.

The following foot note was omitted in the October number. It refers to an asterisk after the word desert, fifteen lines from the end of the column :—

\*NOTE.—The late lamented Geo. Smith, of the British Museum, in his interesting account of the Deluge, which he deciphered after long years of laborious research, wrote the *London Telegraph*: "The cuneiform inscription which I have recently found and translated, gives a long and full account of the Deluge. It contains the version of tradition of this event, which existed in the early Chaldean period of the city of Erech, one of the cities of Nimrod, now represented by the ruins of Warka. In this newly discovered inscription the account of the Deluge is put as a narrative into the mouth of Xisuthrus or Noah. He relates the wickedness of the world, the command to build the ark, its building, the filling of it, the resting of the ark on a mountain, the sending out of the birds, and other matters. *The narrative has a closer resemblance to the account transmitted by the Greeks from Berosus, the Chaldean historian, than to Biblical history, but it does not differ materially from either (because all drew from a common fountain—the original Babylonian records, from which each copied.)* The principal differences are as to the duration of the Deluge, the name of the mountain on which the ark rested, the sending of the birds, etc. The cuneiform account is much longer and fuller than that of Berosus, and has several details omitted both by the Bible and the Chaldean historian. This inscription opens up many questions of which we knew nothing previously, and it is connected with a number of other details of Chaldean history, which will be both interesting and important. This is the first time any inscription has been found with an account of the event mentioned in Genesis."

Some, bolder than others, have had the independence to assert that the various races of men did not originate from a single pair; but were developed at different periods, under widely

differing circumstances, and that each was peculiarly adapted to the locality in which he is found. They saw that the islands and widely-separated continents were inhabited by similar animals and races of human beings, and accounted for this on the hypothesis that their ancestors were carried there by icebergs, or other natural methods, and to man his accidental passage by canoes. Our theory, which seems the more probable, accounts for this condition of things in harmony with the known laws of nature.

Had the earthquake of a few years ago, which created such terrible havoc to property and life on the coast of Chili, floating large ships many miles inland and leaving them high up on the mountain sides, been universal to the western continent, with a tidal wave as much greater as the convulsion would have been more general, it would have rolled over the mountain barriers, and produced a general deluge. All life save that on mountain tops, must have perished. Arks would have been of no account amid such wild and tumultuous warring of the angry elements. A moment, and down sinks the peaceful earth, and on comes the maddened, rushing waters. Billow follows billow mountain high and rolls on, spreading over the plain and leaping the highest crags. Ships would have been no more than straws floating on a surging ocean.

If a receding wave should unveil a continent, it would be a barren waste of crags, and rocks and boulders, pebbles and sand. The few, if any, who clung to mountain tops would probably starve. If any survived, ages of almost limitless duration would have been required to people the earth again.

A general traditional account of the common disaster would have survived; but no clear idea of the long period which had elapsed could have been preserved. The knowledge of the event, being passed from father to son through successive generations, would be credited to a period much shorter than its reality.

Though raised at the court of Pharaoh, Moses only possessed the knowledge common to the educated Egyptians. All the laws and customs introduced by him to his immediate followers, he carried out of Egypt with him. And the Egyptians no doubt borrowed their ideas from their ancestors, who were probably natives of Persia or Farther India.

(To be continued.)

# THE CANADIAN SPORTSMAN AND NATURALIST.

No. 12.

MONTREAL, DECEMBER 15th, 1881.

VOL. I.

## TO OUR PATRONS.

This number ends the first year of THE CANADIAN SPORTSMAN AND NATURALIST."

Last January we were sanguine, anticipating an increase of pages on the appearance of the second volume. To make it double its present size necessarily incurs a larger outlay of hard cash, which, we think, is not fully warranted at this instant. We, therefore, prefer to keep the magazine in its original form, adding, however, a beautiful illustrated title-page, which will appear with the first number of the new year. We are therefore guarded, as our prospects are thus far encouraging, many of our subscribers preferring to continue it at its current price rather than risk failure by adding a few additional pages and increasing the annual subscription. We intend to go on as formerly, keeping within the original groove on which we started, i.e., advocating pure Sport and Natural History; allowing nothing to appear in our columns which will in the least disturb the most fastidious. Correspondence will be thoroughly sifted and made as brief as the subject matter will allow, and we trust that by energy and attention to improve as we become older.

We must here return our thanks to Professor James T. Bell, of Albert University, Belleville, Ont., and to James M. LeMoine, Esq., Quebec, and many others for their kind efforts in bringing the magazine before the notice of their friends, and advancing our interests. Cannot we obtain a similar influence and support from

gentlemen who reside near the many sporting localities in the Dominion? We are impressed that this will occur, and ere the year 1882 passes away many new names will be added to the list, which is already large considering that we are only in our infancy.

As the above remarks will probably appear before our readers on the eve of the annual festive season, and, it being customary to greet friends on such occasions, we sincerely wish all "A MERRY CHRISTMAS AND A HAPPY NEW YEAR."  
C.

## TO SUBSCRIBERS.

Gentlemen who are indebted to us for this year's issue, would confer a favour by sending the amount on receipt of this number.

## OUR SECOND VOLUME.

We will send the second volume to all gentlemen who subscribed last year, trusting that they will continue to take the publication. Those who do not wish to do so, will favour us by returning the number to 806 Craig street, Montreal.

## CHANGING GENERIC NAMES.

It would be in order when the American Science Association meet next year in Montreal, that one of the members of the Zoölogical Section takes up the important subject regarding the useless alterations in names occurring from year to year in the Department of Zoölogy and Botany. It appears to us that there is a School of Naturalists in the United States who persevere in diffusing a system of confusion in the nomenclature of Natural Science. We are extremely sorry to see our talented friend Scudder, of Boston, persistently sticking to old Hubner's generic names for the butterflies

of North America, when he is aware that there is not a man outside of his peculiar school who agrees with him. Not satisfied with altering the genera of LEPIDOPTERA, to suit his fancy, he now issues a book wherein the greater portion of our butterflies are introduced under newly invented common names. *The Canadian Entomologist* says: "It were far better, in our opinion (with few exceptions), to use the specific name of the insect for this purpose, which is as easily learnt and conveys a more definite idea than is possible with such common names as those given by this author." W. H. Edwards, author of "The Butterflies of North America," says: "Throughout this book *Archippus* is ostentatiously called THE MONARCH, I apprehend in right of its amazing history. If it lives as long for a butterfly as Methusaleh lived among men, it may be entitled to some sort of distinctive appellation, and if it has so changed the habits of its kind as to breed like a mammal, laying eggs at intervals in the closing half of its long life and gathering its progeny about its tibias, perhaps it ought to have some superlative title. We read that Methusaleh lived, after he begat Lamech, seven hundred and eighty-two years, and begat sons and daughters, but his long life appears to have been that venerable man's claim to distinction. We do not read that he attained regal honours, or even the chieftainship of a tribe. In view, therefore, of this high precedent, I suggest that the correct thing would have been to designate this long-lived phenomenal butterfly not THE MONARCH, but 'THE PATRIARCH.'"

Then, again, there are compilers of Entomological Catalogues, who, without giving any distinct reason for so doing, take upon themselves to alter well-established genera for seemingly no other purpose than the honour of having their names attached. So much for the piratical way in which these alterations are made, and in order to show how some of them are accomplished, we will instance one or two cases:—

Mr. S. H. Scudder, in his researches, discovered that our common butterfly, the Camberwell Beauty, everywhere known to entomologists as *Vanessa antiopa*, Linn., should not be placed under the genus VANESSA. By a resurrection of old documents he has managed in a miserable way to transfer this butterfly from the latter genus to that of PAPILIO, calling it *Papilio antiopa*, Scudder. This is one of the many innovations which this author places before the Entomologists of America. The same attempt has been made in regard to the COLEOPTERA (Beetles) of this country, and unless the subject is strictly dealt with by the Entomological Section of the Association, the nomenclature of North American insects will be such that ten generations of students will pass away before it is properly understood.

In Botany also, attempts have been made in a similar manner. Suffice to say that a botanist discovered a new species of California *Convolvulus* which he described and felt satisfied that it was placed under the correct genus. It did not belong to the climbing, but to the creeping genera. Some time ago the describer of the plant was horrified to find his species re-described under another genus with the name *Gray* appended to it. Now, we do not wish to see any more of this mode of obtaining material, but possibly Mr. Gray, who is a celebrated botanist, may account for his name being there. Mistakes of this nature will sometimes occur, and one of them was made by the Rev. Mr. Provancher, of Cap Rouge, Q., who attached, in his work on Canadian Coleoptera, the name of Fabricius to a species discovered and described by the writer of this article. We claim that when any one describes a new animal, mineral or plant, that the species (if properly and morally named) is legitimately his to the end of time, and he who takes the name from him to place his own to it robs another man of his intelligence and labour, discouraging and deterring him from going on with his work of doing good to mankind.



Something ought to be done to prevent men, even well-informed authors, from tampering with other peoples' property on subjects to which they have no just claim. It is different when a scientist devotes a life's study to a well-defined class containing numerous genera and forms. He certainly has the privilege of transferring his own species from one group or genera to another, as he finds the analogous forms agreeing. To go back to Hubner's time, and adopt his nomenclature in this advanced century of human knowledge is not what we expected from Mr. Scudder's pen. The idea is absurd and will be far from acting in harmony with the nomenclature of insects as understood at the present day. We do not want even to go back to Fabricius for priority in matters of this kind, but the latter is preferable to Hubner. His generic names are ridiculous and unpronounceable, and the change is not necessary.

In Ornithology, we notice that the same generic name changes are yearly taking place, both in Europe and America. We are sorry for this, as it was thought that in America the generic names emanating from the Smithsonian Institution established at Washington for the diffusion of knowledge among mankind, were sufficient, perfect and authentic. We can point out many instances where a few busy bodies (and can name them) have been breaking up the standard generic names of our birds. For instance the Sparrow Owl (*Nyctale Richardsonii*, Bonaparte,) called in England, (*Strix Tengmalmi*, Bewick,) and in Ireland, Mr. Percy Evans Freke calls the same bird (*Nyctala Tengmalmi*, var. *Richardsonii*, Gmelin.) Here we see three generic applications given to the same species, and after all it is nothing more than the same bird, like many other forms of American avi-fauna occurring on both continents. In *The New Newcastle Weekly Chronicle* of November 5, 1881, Mr. H. Kerr, of Bacup, Lancashire, says that the above owl was named by Gmelin as a compliment to the original discoverer Dr.

Tengmalm, an eminent Scandinavian Ornithologist, while we see as above that it is named by Bonaparte as a compliment to Dr. Richardson. It is therefore clear that Gmelin's name for this owl must stand as it holds priority; the American and high latitude forms being permanent, and the European are merely a geographical variety. But why not adopt one of the three names for this genus which is well-represented in America? No proper nomenclature can be accomplished until this is understood, and the sooner it is done the better.  
C.

### NOVA SCOTIA GAME LAWS.

#### LORD DUNRAVEN'S CASE.

Of all countries in this world, the Dominion of Canada is the most famous for complex Game Laws. The Provinces of Ontario, Quebec, New Brunswick and Nova Scotia have game laws, not one of which harmonizes with the other more especially regarding quadrupeds named in the Act. Considering that the geographical range of deer is almost similar in these Provinces, it seems ridiculous that the law affecting them should be different within their places of occurrence. Again, it is understood that any person inclined to hunt deer during the open season has a perfect right to do so without let or hindrance. This, however, it appears is not the case in Nova Scotia, where we notice that Lord Dunraven was fined for shooting deer, commonly called Moose, although he had a license to hunt the latter animal in the district in which he procured the authority so do so. In a letter which his Lordship published in *Forest and Stream*, he says:—

“A man might pursue a moose and wound it in one district and be compelled to follow it into another to kill it. The proper course, I presume, for him to adopt on arriving at the county line would be to go back to camp, pack up his traps, and go out to the settlements, which might take a couple of days or so. He should then proceed to the residence of the Clerk of the Peace, which would take a day, and having got his endorsement on the license,

should return to look for the moose, which would occupy several days more. But by this time the moose would be dead, and the meat spoiled, and for allowing it to spoil the hunter would be liable to a heavy fine. It appears, moreover, that under this Act, if a game warden, who would get half the fine, chose to take action in such a case, the magistrate would have no option. I leave it to you, sir, to judge whether the game laws are remarkable for the extreme simplicity claimed for them."

From this statement it appears that it is necessary when a gentleman obtains a license to hunt deer in Nova Scotia, that to secure thorough sport, the document should be signed by a resident Clerk of the Peace in each county or district in the Province. It is also evident that the object of making a law of this nature is to prevent any hunting of deer in Nova Scotia. But we ask why issue a license if this is the way its game laws are to be interpreted? Lord Dunraven states that the Nova Scotian Game Laws have been altered since he last hunted in the Province, but if the license was actually obtained this season, it occurs to us that the party granting the same should at least have had the courtesy to inform his Lordship whatever changes occurred since his previous hunting in that Province. If the Game Law makers in the other Provinces persist in this license business the result will be to prevent European sportsmen from visiting Canada, which will be a great loss and disadvantage to the country.—C.

#### QUERIES.

Can any of our readers give us information regarding the nesting habits of the Logcock or Black Woodpecker (*Hylotomus piliatus*, Baird). It occurs occasionally in the woodlands north of Montreal, generally in November and December. We want to obtain a record of this bird's history during May and June.

We wish to receive some accurate account of the gigantic moth (*Erebus odora*, Linn.) which has been found on several occasions in Canada. One was found at Collingwood, one

at Ottawa, one at Montreal, but only a single instance at a time. Did any one find the larva in Canada? Where do they come from? We know that there are theories in regard to its occurrence so far North, but very little has been written regarding this curious insect.

#### CANADIAN MUSEUMS.

##### TORONTO UNIVERSITY.

The idea of publishing brief descriptions of Canadian Museums emanated from the Editor of this journal, not with the intention of giving either a minute or accurate account of them, but merely to indicate where they are located and to show that they produce a moral and intellectual force in enlightening the young people, especially those who attend lectures on Natural Science. That Museums and well selected libraries have already produced good effects in Canada, cannot be denied. Why is it that ignorant parents are always anxious to have their children educated and brought up to acquire a knowledge of human progress? Cognizant of their own condition from experience, they are simply aware that education, be it ever so meagre, is necessary for both sexes, in order to follow any occupation now-a-days. Therefore we are anxious to see Canadian educational institutions well and punctually supported by Government and those who are in positions to aid them. We hope the day is not distant when our Universities and Colleges will receive such outside support as to enable the sons and daughters of every humble citizen to enter and be educated.

The collections now in the Toronto University Museum were commenced about the year 1849, and in 1852, the late Wm. Hincks a brother of Sir Francis Hincks of this city, was appointed Professor of Natural History in the above named institution, which at the latter date received a grant from Government to extend its Museum. Through energy and economy a large number of specimens were added, and before Mr. Hincks' death, the Museum was considered the best then in Canada. After the appointment of the latter, the late George

Hadgraft of London, Eng., was induced to come over to Toronto to do the Taxidermal work, and then the Museum became quickly filled up. At present it contains almost all the birds and many of the quadrupeds of Canada, together with general collections of minerals, fossils, shells and plants, which have been a source of benefit and pleasure not only to the students attending the classes of Natural History, but to their colleagues and the citizens of Toronto. We learn that there is no annual grant given to further promote this necessary branch of Education in Toronto University. Yet since the last appropriation was made, a large sum of money was expended for a foreign collection of pictures for the Norman School of Toronto. This certainly occurred before Confederation, but it may be otherwise now, as we learn that some of the high Educational institutions of Ontario are self-supporting. However the Museum of the Toronto University still requires many additions to be in order for advanced classes in Natural Science. We certainly have a love for Fine Arts, but if Canada spends money for pictures intended for educational purposes, it would be preferable that it should be devoted to advance native talent.—C.

#### THE TRUTH.

*The American Field* in a late issue, referring to an article (Expose Them) which appeared in our November number, states that it does not believe what we said regarding the traps laid on the sand bar in the Swanton Marshes. We again repeat that two members of the Club were detected picking up the traps: and when discovered so doing, acknowledged that they were set for Black duck. It is not our wish to publish the names of these pseudo sportsmen, we will leave such matters to the Game-keepers of the State. In conclusion we ask the sporting Editor of the *Field* to be kind enough when he again takes the liberty to use the scissors to dissect our columns to give at least credit to the journal from which he takes his matter.—C.

#### ANSWER TO CORRESPONDENT.

W. A. S., Amherst, Mass., U. S.—A full set of the "THE CANADIAN NATURALIST AND GEOLOGIST" may be purchased by writing to Messrs. Dawson Bros., Montreal. There is no magazine, published in Canada, specially devoted to Botany.

## Correspondence.

#### ROBIN vs. CROSSBILL.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST:—

SIR,—Your correspondent "Teal," in a communication which appears in the November number of the CANADIAN SPORTSMAN AND NATURALIST, affirms that I am evidently astray in regard to the tradition of the Robin picking a thorn out of Christ's head; and he does me the kindness to suggest that perhaps I "confound the Robin with the legend of the Crossbill, from the German of Julius Mosen, translated by Longfellow." I must beg leave to repudiate "Teal's" impeachment with respect to my being "astray," as well as with regard to the charge of "confounding" one bird with another. My authority for the legend regarding the English Robin is the Rev. E. Cobham Brewer LL. D. of Trinity Hall, Cambridge, the compiler of the "Dictionary of Phrase and Fable," as well as the author of several scientific books; and I prefer adopting his version of the legend to that translated from the German by Longfellow, pretty as the stanzas are. And I ground my preference on the following reason. The breast of the English Robin *Erythra rubecula*, is *always red*, whereas the Crossbills, according to Wilson and the other Ornithologists, "are subject to considerable changes of colour." Indeed the German author, Dr. Bechstein, asserts that Red (*χρυσόπρος*) Crossbills are only one year old, and the greenish yellow ones are the adults." But, after all, the legend I quoted does not allude to the same transaction as that referred to by Mosen, for the Robin was said to have plucked a thorn from the crown worn by the Saviour as He traversed the *Via Dolorosa* before He was nailed to the cross; whereas the Crossbill is said to have endeavoured to pluck out one of the nails that pierced His hands and feet. This circumstance, however, only



renders "Teal's" strictures more uncalled for. The concluding stanza of Longfellow's poem runs thus:

"And that bird is called the Crossbill,  
Covered all with blood so clear;  
In the groves of pine it singeth  
Songs, like legends, strange to hear."

"Strange" indeed! Did anyone ever hear a Crossbill *sing*? Wilson says that they have "a loud, sharp, and not unmusical note and chatter as they fly." This scarcely carries out the Poet's description. But Bechstein tells us that it utters harsh, shrill, notes with but little melody. One bird will try to surpass the other: and those are the most esteemed by the fancier which repeat frequently a sound like *reits* or *croits*, and which is called the crowing of the Crossbill." How does this account, the correct one, tally with Mr. Longfellow's "songs"?

With regard to the destruction of the American Robin, advocated by "Teal," I may remark that that bird is not much of an insectivorous bird, that I do not purpose, in future, to urge any plea in favour of its immunity, inasmuch as during my absence from home in September a number of Robins played sad havoc with my grape-vines, devouring nearly all the fruit. But, as to the "Winter sport" of "shooting Black-birds Thrushes, Larks, Redwings and Fieldfares," I desire to add that I myself enjoyed such "hedge-popping" sport *when a boy*, in England; and as "Teal" appears fond of poetry I will quote the following stanzas from an old sporting song:

"When I was but a little boy,  
And scarce could lift a gun,  
I oft would leave each childish toy,  
And to the fields would run.

With pistol for my fowling-piece,  
I thought myself a man;  
And thus improving by degrees,  
A sportsman's life began.

At Lark and Redwing and Fieldfare  
My skill I first did try;  
At every bird that wings the air  
I quickly did let fly."

There, sir, is "Teal to a T." But I, when I became a man, put away such childish sport:

"When elder grown a gun I got,  
A pointer, too, I bought;  
And being now a decent shot  
The stubble-field I sought;"

aye, and the bogs and mountains of Kerry too, where, year by year, before leaving old England for this my adopted country, I enjoyed sport worthy the name of sport, the enjoyment

much enhanced by the hard work necessitated in its prosecution. Now, "Teal" when he writes about the pleasure of shooting Black-birds, Larks, &c., and of indulging in the "good pie they make" must be very hard up for genuine sport, or he must be too greatly addicted to the Lucullus like luxuries of the table. We have read of dishes of Nightingales' tongues, of the more expensive, but not less-to-be-deprecated African draught of liquified pearls; but I scarcely expected to find the shooting of Blackbirds Thrushes, and Larks, for pies dignified with the term "Sport?" in the pages of your Journal.

VINCENT CLEMENTI.

Peterboro, November 19. 1881.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST:

SIR,—Three friends and myself left Montreal on the 4th November, bound on a duck-shooting trip to Lake St. Francis. We anticipated some good sport, but were doomed to disappointment, as, on arriving at the lake next day, very few ducks could be seen. We tried several of the best-known places on the lake, for four days, but very few ducks came to our decoys. So, we packed up our traps, and left Lancaster, sadder, but wiser men. We shot about 30 ducks, most of them being Scoters, and Buffle-heads. I shot a long-eared owl, (*Otus Wilsonianus*) on Ross' Island, which may interest ornithologists. A gentleman informed me that he was shooting on Lake St. Francis, about the middle of October, and, at that time, Red-heads and Blue-bills, were plentiful. He had some good sport, killing thirty of the above-named ducks in one day. Large Yellow-legs and Jack-snipe were abundant, but as the ducks afforded him such good sport, he did not go after the former. An American steam yacht arrived on the lake the day he left. I was informed that these Americans slaughtered several hundred ducks in a week, and one day killed 127 ducks, shooting out of a sink-boat anchored out in the lake, and having about 200 decoys out. I cannot understand how it is, that the Canadian authorities do not put a stop to these pot-hunters slaughtering our game to supply American markets. If Canadian sportsmen went on United States grounds in pursuit of game, they would very soon be arrested, fined, and their guns confiscated. Therefore, we should retaliate on them. I notice that the Fall ducks vary in their arrival and departure from our lakes, and would advise sportsmen

to ascertain from persons resident near the lakes, to inform them of the first appearance of the ducks, so that they can start on their shooting trips at the right time. Very few Red-heads, Blue-bills, and Plover were exposed for sale in our markets this Fall, but plenty of Black Ducks, Teal, Woodcock and Snipe. I am under the impression that the Red-heads and Blue-bills departed the latter end of October. If many were observed in November, I should be interested to hear of it through the columns of the CANADIAN SPORTSMAN AND NATURALIST.

TEAL.

Montreal, 4th December, 1881.

To the Editor of the CANADIAN SPORTSMAN AND NATURALIST:

DEAR SIR,—I take "in good part" your strictures on my notes to Professor Macoun's ornithological record, and hope you will receive what I have to say in reply in a similar candid spirit. In the first place I would point out that there is a general disposition on the part of our best naturalists to simplify the nomenclature, by abolishing many of the genera which have been recently established on what are considered very insufficient grounds, and at the same time to retain or restore those names which are entitled to priority, with the exception of such as are manifestly inappropriate, as having been bestowed either in the absence of sufficient knowledge, or in misconception. The name "*Lanius*" is certainly entitled to priority in point of time, having been bestowed on the Shrikes by Linnæus, while "*Colluris*" originated (not with Dr. Baird,) but with Vigors. There can be no comparison between these two names as to their appropriateness, the former being exactly descriptive of the habits of the bird; the only objection that can be made to it being that it does not come from the Greek, but from the Latin language. The name *Colluris* appears to me to be far-fetched and inappropriate, inasmuch as the only derivation I can find for it is *Κολλυριον* (*kollurion*), diminutive of *Κολληρα* (*kollura*), equivalent of *Κολληξ* (*kollix*), a long, narrow loaf of bread, this is latinized into *Collyrium*, eye-salve, so called because put up in small cakes. Now the bird does not eat bread, either in long or short loaves; and certainly does not use eye-salve either in large or small cakes, and I therefore think that this may be taken as an example of the reckless manner in which ridiculous names have been inflicted upon unoffending species by

fanciful authors. You have evidently formed a wrong conception of the scope and character of Professor Jordan's "*Manual of the Vertebrates*." It is in fact a very valuable work, carefully condensed and compiled from the best American authors, and I would as strongly recommend it as a book of reference to the student of vertebrate life, as I would Nuttall's or Walker's Dictionary to the student of the English language, for it has the merit of presenting the distinctive characters of each species so clearly, and so free from the unimportant details with which too many writers overload their descriptions, that both Professor Macoun and myself have been able through its means to identify several birds and other animals which we had failed to recognize from other more laboured and pretentious works. I may say further that it is only in the edition of 1881 that Dr. Jordan has restored the name "*Lanius*," having adopted "*Colluris*" in his former editions.

Your obedient servant,

JAMES T. BELL.

Albert College,  
Belleville, Dec. 5th, 1881. }

P.S.—I find that I made a mistake in the name of the worthy sportsman whose success among the Bass I recorded in my former letter; his name is Ormond, not Orwin, as I accidentally mis-spelled it. J. T. B.

Some of our hunters have visited the northern part of this district with pretty good success. Messrs. S. B. Burdett, H. Corby, and Jas. Clarke, spent a week at Loon Lake, and killed five deer in three days hunting. In Dungannon and Faraday, Messrs. R. Tait and J. Roy, one day, drove three deer into Bay Lake, all of which they killed. In the afternoon Mr. Roy went out again and killed another by still-hunting. Game of all kinds is unusually plentiful in the northern townships of Hastings this year. A few days ago Mr. R. Day shot thirteen partridges (*Ruffed Grouse*) within three miles of the city of Belleville.

J. T. B.

## A GENERAL DELUGE.

BY G. W. BROWN, M. D.

(Our Home, and Science Gossip.)

China claims a written history of 300,000 years. She gives the names of dynasties who have ruled over them for more than 50,000 years. May there not be more truth in their histories than we have given them credit? They have had a written and printed language from time immemorial. It is very probable,

as we have before suggested, that China has remained above the surface through all the wrecks of comparatively modern continents; that formerly the western boundary of a coast line, by submergence on the one hand, and upheaval on the other, its condition has been changed to an eastern one. This idea is strengthened by the evidences of antiquity which mark that people; by their numerous population, being nearly equal to all other portions of the globe; to their traditions extending far back into the past; their historical accounts, and the general opinions prevailing in all countries that the world was peopled from the East. And as almost conclusive evidence in support of this proposition is the identity of religious belief, universally prevailing, when stripped of additions made to earlier teachings by a advancing civilization.

Perchance, were we able to follow these reflections to a natural conclusion and had the desirable knowledge which present explorations are developing, we could show that the wonderful records left by a long extinct race in Peru and Central America, of pyramids, and walled cities, and gigantic statuary, and mummies, instead of being the reflex of Asiatic civilization are the parents of these comparatively modern nations.

The preceding pages, relative to a so called general deluge, are only suggestive, but sufficient to awaken thought in the direction we have indicated. We offer, in corroboration of this theory, what to us is conclusive—that in the remote past a continent densely populated occupied at least a portion of what is now the Pacific ocean; that the islands visible in that ocean were but elevated lands and plateaus of ancient mountains; that the now eastern and western continents were then but beds of mighty oceans; that by slow processes, extending through countless ages, they slowly emerged from the sea; that the present order of things is comparatively modern *dating back but a few hundred thousand years*; although there are evidences of a still remoter past, when animal life, man included, inhabited the present continents, antedating the glacial period, and probably before its last submergence, to which condition it is again inclining. For proof we may state that the city of Quito, since 1745, in 1870 had sunk 246 feet, by careful observations made at different periods by the ablest scientists. Pinchinea went down 218 feet during the same period, and its crater has sunk 425 feet during the last twenty six years.

When Columbus landed in America, in 1492, he found a people so closely resembling those of the extreme east of Asia, he supposed he had reached the Indies in his journey around the world, and, hence, gave them the name of Indians. A more intimate acquaintance with these people revealed the additional fact that their religious notions and many of their traditions, particularly those pertaining to a general deluge, were identical with those prevailing throughout Asia. Travellers among them found that many words used by these nomadic tribes were the same as those employed by Orientals. These travellers, accepting the Mosaic account of creation, with its very brief period of human existence, believing the Creator fashioned the earth substantially as we see it now, and not questioning the scriptural account in regard to the dispersion of races, concluded the "ten tribes of Israel" wandered toward Behring straits, crossed over, thence down the coast to Mexico, and from there gradually spread over the entire American continent.

With us, a common use of primitive terms among widely separated nations, is positive proof of a common origin of these peoples; but in no way does it corroborate the idea of those who are ever drawing upon foreign and irrelevant facts to sustain an inconsistent theory, that the Indians are descendants of Abraham.

Islands in the Pacific ocean, hundreds of miles apart, and thousands of miles from the main land, either Asiatic or American, were found by the first explorers to be inhabited by the same race, marked with the same peculiarities of complexion, general features, color of hair, etc., and each had customs in common, with gestures and expressions so similar that they could make themselves intelligible to each other when they first met; and yet, the inhabitants of one island had no idea of the existence of others outside of their own islands. It has been suggested that the ancestors of these people formerly held intercourse by means of canoes. This hypothesis is simply preposterous, as a canoe could not live for weeks on this boisterous ocean, without chart or compass, and pass from one island to another. This would and did take place with islands near to and in sight of each other; but such explorations would never be undertaken by savage tribes, as they were wholly destitute of that species of adventure.

(To be continued.)